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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Edward Cain Examiner #: 69658 Date: 1/26/04
Art Unit: 1714 Phone Number 302-1118 Serial Number: 09/924 321Mail Box and Bldg/Room Location: 10 D-19 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract:

Title of Invention: Die attach adhesives with vinyl ether and urea functionalityInventors (please provide full names): Osama M. MusaEarliest Priority Filing Date: 8/18/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

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Searcher Location: _____
Date Searcher Picked Up: 1-29-04
Date Completed: 1-29-04
Searcher Prep & Review Time: 5
Glorious Prep Time: _____
Online Time: 95

Type of Search	Vendors and cost where applicable
NA Sequence (#)	STN <u>4101-66</u>
AA Sequence (#)	Diplog <u>(3) (and)</u> Questel/Orbit <u>Q</u>
Structure (#)	Dr. Link <u>Q</u>
Bibliographic	Lexis/Nexis <u>Q</u>
Litigation	Sequence Systems <u>Q</u>
Fulltext	WWW/Internet <u>Q</u>
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FILE 'LREGISTRY' ENTERED AT 16:52:31 ON 29 JAN 2004
L1 STR

FILE 'REGISTRY' ENTERED AT 17:05:55 ON 29 JAN 2004
L2 O S L1

FILE 'LREGISTRY' ENTERED AT 17:06:01 ON 29 JAN 2004
L3 STR L1

FILE 'REGISTRY' ENTERED AT 17:11:47 ON 29 JAN 2004
L4 O S L3

FILE 'HCAPLUS' ENTERED AT 17:12:57 ON 29 JAN 2004
L5 34 S MUSA O?/AU
L6 29818 S ?VINYLETHER? OR (VINYL## OR ?VINYL) (2A)ETHER#
L7 194931 S UREA#

FILE 'LCA' ENTERED AT 17:14:01 ON 29 JAN 2004
L8 5976 S (ADHESI? OR ADHERE? OR STICK? OR CLING? OR BOND? OR CEM
L9 1777 S ADHESI? OR ADHERE? OR BONDER? OR CONGLUTIN? OR AGGLUTIN

FILE 'HCAPLUS' ENTERED AT 17:15:38 ON 29 JAN 2004
L10 7 S L5 AND L6
L11 4 S L5 AND L7
L12 16 S L5 AND L9
L13 3 S L10 AND L11 AND L12
SEL L13 1 RN

FILE 'REGISTRY' ENTERED AT 17:18:30 ON 29 JAN 2004
L14 6 S E1-E6
E DDI/CN
L15 3 S E3
L16 1 S L15 AND L14

FILE 'HCAPLUS' ENTERED AT 17:22:58 ON 29 JAN 2004
L17 31487 S ?VINYLETHER? OR ?VINYL?(2A)ETHER#
L18 109 S L16

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E C5H11NO/MF

L19 420 S E3
L20 1 S L19 AND L14

FILE 'HCAPLUS' ENTERED AT 17:28:10 ON 29 JAN 2004

L21 47 S L20
L22 1 S L21 AND L18
L23 11 S L18 AND L17
L24 1 S L23 AND L7
L25 477 S L17 AND L7
L26 133 S L25 AND L9
L27 61638 S DIE OR DIES
L28 1 S L26 AND L27
L29 11 S L23 AND L9
L30 7 S L23 AND L27

FILE 'REGISTRY' ENTERED AT 17:35:15 ON 29 JAN 2004

L31 42 S L3 FUL
SAV L31 CAI321/A

FILE 'HCAPLUS' ENTERED AT 17:44:34 ON 29 JAN 2004

L32 16 S L31

FILE 'LREGISTRY' ENTERED AT 17:45:09 ON 29 JAN 2004

L33 STR

FILE 'REGISTRY' ENTERED AT 17:50:06 ON 29 JAN 2004

L34 3 S L33
L35 558 S L33 FUL
SAV L35 CAI321A/A

FILE 'HCAPLUS' ENTERED AT 17:53:30 ON 29 JAN 2004

L36 1105 S L35
L37 1 S L36 AND L18
L38 48787 S ?DIISOCYANAT?
L39 7 S L36 AND L38

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L40 STR

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SAV L42 CAI321B/A

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 L44 2 S L35 AND ?DIISOCYANAT?/CNS

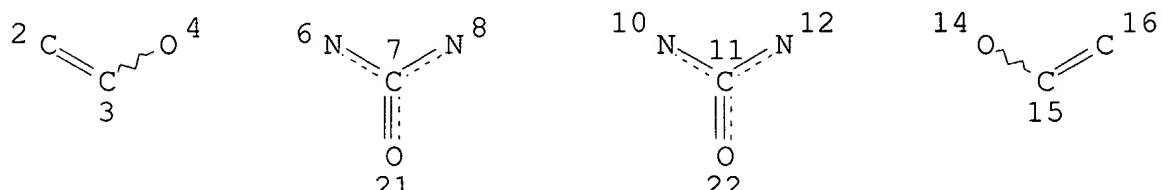
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 L45 2 S L44

FILE 'REGISTRY' ENTERED AT 17:57:50 ON 29 JAN 2004
 L46 37107 S ?DIISOCYANAT?/CNS

FILE 'HCAPLUS' ENTERED AT 17:58:28 ON 29 JAN 2004
 L47 62939 S L46
 L48 8 S L36 AND L47
 L49 716 S L17 AND (L47 OR L38)
 L50 249 S L49 AND L9
 L51 8 S L50 AND L27
 L52 18 S L22 OR L24 OR L28 OR L30 OR L37 OR L39 OR L43 OR L45 OR
 L53 20 S (L23 OR L29 OR L32) NOT L52

FILE 'REGISTRY' ENTERED AT 18:03:20 ON 29 JAN 2004

=> d 131 que stat
 L3 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
 L31 42 SEA FILE=REGISTRY SSS FUL L3

100.0% PROCESSED 1034 ITERATIONS
 SEARCH TIME: 00.00.01

42 ANSWERS

=> d 142 que stat
L33 STR

C=C—O*G1*NH2 A @8
1 2 3 4 5

REP G1=(1-6) 8
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NSPEC IS RC AT 8
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L35 558 SEA FILE=REGISTRY SSS FUL L33
L40 STR

O=C=N 8 9 10
1 2 3

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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L42 3 SEA FILE=REGISTRY SUB=L35 SSS FUL L40

100.0% PROCESSED 4 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.01

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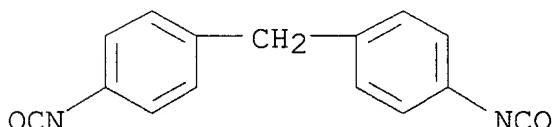
L52 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 2003:133378 Document No. 138:171429 Curable silicon-containing adhesion promoting resins useful in adhesives, coatings or sealants. Musa, Osama M. (National Starch and Chemical Investment Holding Corporation, USA). PCT Int. Appl. WO 2003014248 A2 20030220, 75 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US20502 20020628. PRIORITY: US 2001-923494 20010807.

AB The title resins can be designed to be flexible and to have an appropriate mol. wt. to provide low volatility and low viscosity, and can be represented by a general formula: [(R1O)3-nSiR2nAl]Q[LAR2nSi(R1O)3-n]0-1, wherein Q=oligomeric polymer chain contg. at least one double bond, R1=Me or Et, R2=C1-4 alkyl, vinyl, or arom. group, n=0-2, A=hydrocarbyl, L=linking group. An example was prep'd. by reacting 3-isocyanatopropyltriethoxysilane with Poly bd-R 20LM (OH-terminated polybutadiene) to give triethoxysilane-terminated polybutadiene, which was used in adhesive formulation showing good adhesion to Ag-coated copper and Cu leadframe.

IT 101-68-8DP, MDI, reaction product with OH-terminated and epoxidized butadiene rubber and alkoxy silanes 66415-55-2DP, 3-Aminopropyl vinyl ether, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes (curable silicon-contg. adhesion promoters useful in adhesives, coatings or sealants)

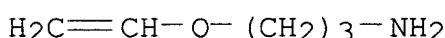
RN 101-68-8 HCAPLUS

CN Benzene, 1,1'-methylenebis[4-isocyanato- (9CI) (CA INDEX NAME)



RN 66415-55-2 HCAPLUS

CN 1-Propanamine, 3-(ethoxyloxy)- (9CI) (CA INDEX NAME)



IC ICM C09J201-10

ICS C08G018-71; C07F007-18; C08C019-25; C08F279-02; C08F008-42;
C09D007-12

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42, 56, 76

IT 60-24-2DP, Mercaptoethanol, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 101-68-8DP, MDI, reaction product with OH-terminated and epoxidized butadiene rubber and alkoxy silanes 104-54-1DP, Cinnamyl alcohol, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 141-75-3DP, Butanoyl chloride, reaction product with amino-terminated and epoxidized butadiene rubber and alkoxy silanes 814-68-6DP, Acryloyl chloride, reaction product with OH-terminated butadiene rubber, isocyanates and alkoxy silanes 818-61-1DP, 2-Hydroxyethyl acrylate, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 920-46-7DP, Methacrylic chloride, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 998-30-1DP, Triethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 1476-23-9DP, Allyl isocyanate, reaction product with chlorinated and epoxidized butadiene rubber and alkoxy silanes 1585-90-6DP, N-(2-Hydroxyethyl)maleimide, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 1592-20-7DP, 4-Vinylbenzyl chloride, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 1760-24-3DP, N-.beta. (Aminoethyl)-.gamma.-aminopropyltrimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 1871-21-2DP, Trivinylchlorosilane, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 2094-99-7DP, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 2459-05-4DP, Fumaric acid monoethyl ester, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 2487-90-3DP, Trimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 2687-12-9DP, Cinnamyl chloride, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 3158-26-7DP, Octyl isocyanate, reaction product with chlorinated and epoxidized butadiene rubber and alkoxy silanes 4420-74-0DP, .gamma.-Mercaptopropyltrimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 7003-80-7DP, p-Aminophenyltriethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 7691-02-3DP, 1,3-Divinyldisilazane, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 7791-25-5DP, Sulfonyl chloride, reaction product with OH-terminated and epoxidized butadiene rubber, isocyanates and alkoxy silanes 15396-00-6DP, 3-Isocyanatopropyltrimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI

17306-05-7DP, Chloromethylphenylvinylsilane, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes
24801-88-5DP, 3-Isocyanatopropyltriethoxysilane, reaction product with OH-terminated butadiene rubber 33976-43-1DP,
p-Aminophenyltrimethoxysilane, reaction product with OH-terminated and epoxidized butadiene rubber and MDI 42168-36-5P
66415-55-2DP, 3-Aminopropyl vinyl ether, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 95627-94-4DP, reaction product with chlorinated and epoxidized butadiene rubber, MDI and alkoxy silanes 497265-71-1P
497265-72-2P 497265-73-3P 497265-74-4P 497265-75-5P
497265-76-6P 497265-77-7P 497265-78-8P 497265-79-9P
497265-80-2P 497265-81-3P 497265-82-4P 497265-83-5P
497265-84-6P 497265-85-7P 497265-86-8P 497265-87-9P
497265-88-0P 497265-89-1P
(curable silicon-contg. adhesion promoters useful in adhesives, coatings or sealants)

L52 ANSWER 2 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN

2002:675416 Document No. 137:338568 Acid-enhanced interfacial polymer layer growth. Major, J. S.; Blanchard, G. J. (Department of Chemistry, Michigan State University, East Lansing, MI, 48824-1322, USA). Chemistry of Materials, 14(10), 4320-4327 (English) 2002. CODEN: CMATEX. ISSN: 0897-4756. Publisher: American Chemical Society.

AB We report on the growth of interfacial multilayer structures formed from maleimide-vinyl ether alternating copolymers. The thickness and d. of these polymer layers can be controlled by adding acid to the interlayer crosslinking reaction. We have demonstrated this control for several different interlayer crosslinking strategies, where amide, ester, urea, and urethane interlayer covalent bonds are formed. For all reactions, the addn. of concd. acid during polymer layer deposition resulted in a 2- to 4-fold increase in the loading d. of the polymer relative to the acid-free reaction, depending on the acid used and its concn. These findings are consistent with acid catalysis (HCl) and/or dehydration (H₂SO₄).

IT **441350-36-3P 441350-41-0P 474282-21-8P**

(crosslinked multilayer; acid-enhanced interfacial polymer layer growth by next layer addn. via crosslinking with amide, ester or urethane bond formation)

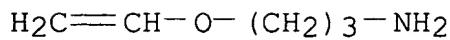
RN 441350-36-3 HCPLUS

CN Hexanedioyl dichloride, polymer with 1-(3-chlorophenyl)-1H-pyrrole-2,5-dione and 3-(ethoxy)-1-propanamine (9CI) (CA INDEX NAME)

CM 1

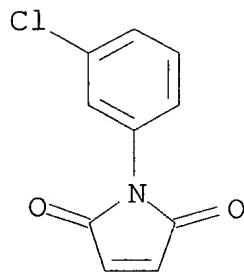
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CMF C5 H11 N O



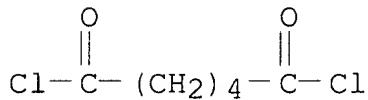
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CRN 1204-35-9
 CMF C10 H6 Cl N O2



CM 3

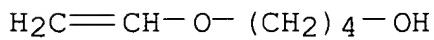
CRN 111-50-2
 CMF C6 H8 Cl2 O2



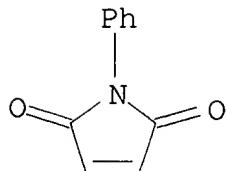
RN 441350-41-0 HCAPLUS
 CN 1H-Pyrrole-2,5-dione, 1-phenyl-, polymer with 1,6-diisocyanatohexane and 4-(ethenyl)oxy)-1-butanol (9CI) (CA INDEX NAME)

CM 1

CRN 17832-28-9
 CMF C6 H12 O2



CM 2

CRN 941-69-5
CMF C10 H7 N O2

CM 3

CRN 822-06-0
CMF C8 H12 N2 O2OCN- (CH₂)₆-NCO

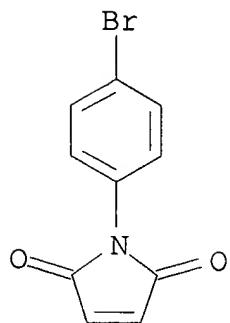
RN 474282-21-8 HCAPLUS
 CN 1H-Pyrrole-2,5-dione, 1-(4-bromophenyl)-, polymer with
 1,6-diisocyanatohexane and 3-(ethenyloxy)-1-propanamine (9CI) (CA
 INDEX NAME)

CM 1

CRN 66415-55-2
CMF C5 H11 N OH₂C=CH-O-(CH₂)₃-NH₂

CM 2

CRN 13380-67-1
CMF C10 H6 Br N O2



CM 3

CRN 822-06-0

CMF C8 H12 N2 O2

OCN- (CH₂)₆-NCO

IT **460983-70-4**, 3-Aminopropyl vinyl ether-N-(3-chlorophenyl)maleimide alternating copolymer **460983-71-5**, 3-Aminopropyl vinyl ether-N-(4-bromophenyl)maleimide alternating copolymer

(individual layer; acid-enhanced interfacial polymer layer growth by next layer addn. via crosslinking with amide, ester or urethane bond formation)

RN 460983-70-4 HCPLUS

CN 1H-Pyrrole-2,5-dione, 1-(3-chlorophenyl)-, polymer with 3-(ethenyl)oxy-1-propanamine, alternating (9CI) (CA INDEX NAME)

CM 1

CRN 66415-55-2

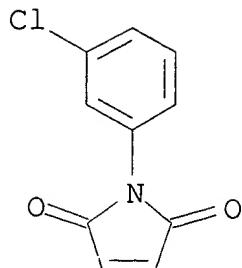
CMF C5 H11 N O

H₂C=CH-O-(CH₂)₃-NH₂

CM 2

CRN 1204-35-9

CMF C10 H6 Cl N O2



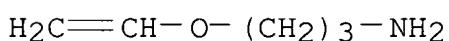
RN 460983-71-5 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-(4-bromophenyl)-, polymer with
3-(ethenyoxy)-1-propanamine, alternating (9CI) (CA INDEX NAME)

CM 1

CRN 66415-55-2

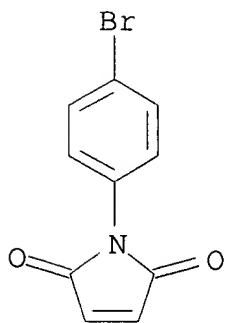
CMF C5 H11 N O



CM 2

CRN 13380-67-1

CMF C10 H6 Br N O2



CC 37-6 (Plastics Manufacture and Processing)

IT 441350-36-3P 441350-37-4P 441350-41-0P

474282-21-8P

(crosslinked multilayer; acid-enhanced interfacial polymer layer

growth by next layer addn. via crosslinking with amide, ester or urethane bond formation)

IT 441309-57-5, N-Phenylmaleimide-1-vinyloxy-4-butanol alternating copolymer 460983-70-4, 3-Aminopropyl vinyl ether-N-(3-chlorophenyl)maleimide alternating copolymer 460983-71-5, 3-Aminopropyl vinyl ether-N-(4-bromophenyl)maleimide alternating copolymer (individual layer; acid-enhanced interfacial polymer layer growth by next layer addn. via crosslinking with amide, ester or urethane bond formation)

L52 ANSWER 3 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
 2002:360443 Document No. 137:94145 Strategies for Covalent Multilayer Growth. 2. Interlayer Linking Chemistry. Major, J. S.; Blanchard, G. J. (Department of Chemistry, Michigan State University, East Lansing, MI, 48824-1322, USA). Chemistry of Materials, 14(6), 2574-2581 (English) 2002. CODEN: CMATEX. ISSN: 0897-4756.

Publisher: American Chemical Society.

AB A strategy was developed for covalent assembly of polymer multilayers at interfaces, where growth is accomplished one layer at a time. The individual layer constituents are maleimide-vinyl ether alternating copolymers with side groups that possess reactive functionalities that form interlayer bonds. Selective amide, ester, ether, urea, and urethane interlayer linkages were formed by the covalent assembly process with controlled multilayer growth. The resulting multilayer structures show linear growth in terms of thickness, measured ellipsometrically, and total mass loading, measured by UV-visible and FTIR spectroscopies.

IT 441350-36-3P, Adipoyl chloride-3-Aminopropyl-1-vinyl ether-3-chlorophenylmaleimide copolymer 441350-40-9P, 3-Aminopropyl-1-vinyl ether-3-chlorophenylmaleimide-1,6-disiocyanatohexane copolymer 441350-41-0P, 4-Hydroxybutyl vinyl ether-N-phenylmaleimide-1,6-disiocyanatohexane copolymer

(covalent bond formation between layers of functionalized maleimide-vinyl ether copolymers and crosslinkers to obtain multilayers)

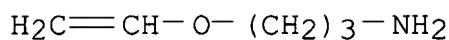
RN 441350-36-3 HCPLUS

CN Hexanedioyl dichloride, polymer with 1-(3-chlorophenyl)-1H-pyrrole-2,5-dione and 3-(ethenyl)-1-propanamine (9CI) (CA INDEX NAME)

CM 1

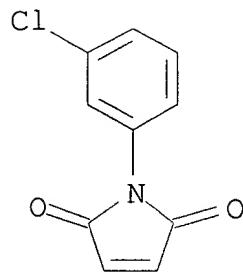
CRN 66415-55-2

CMF C5 H11 N O



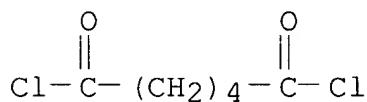
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CRN 1204-35-9
 CMF C10 H6 Cl N O2



CM 3

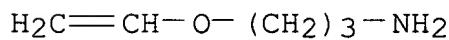
CRN 111-50-2
 CMF C6 H8 Cl2 O2



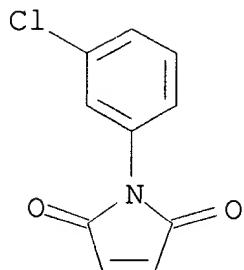
RN 441350-40-9 HCPLUS
 CN 1H-Pyrrole-2,5-dione, 1-(3-chlorophenyl)-, polymer with
 1,6-diisocyanatohexane and 3-(ethenylloxy)-1-propanamine (9CI) (CA
 INDEX NAME)

CM 1

CRN 66415-55-2
 CMF C5 H11 N O



CM 2

CRN 1204-35-9
CMF C10 H6 Cl N O2

CM 3

CRN 822-06-0
CMF C8 H12 N2 O2OCN-(CH₂)₆-NCO

RN 441350-41-0 HCAPLUS

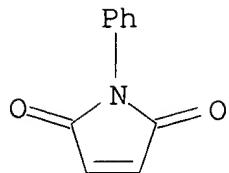
CN 1H-Pyrrole-2,5-dione, 1-phenyl-, polymer with 1,6-diisocyanatohexane and 4-(ethenyloxy)-1-butanol (9CI) (CA INDEX NAME)

CM 1

CRN 17832-28-9
CMF C6 H12 O2H₂C=CH-O-(CH₂)₄-OH

CM 2

CRN 941-69-5
CMF C10 H7 N O2



CM 3

CRN 822-06-0

CMF C8 H12 N2 O2

OCN- (CH₂)₆ - NCO

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36

IT 331430-51-4DP, Ethyl vinyl ether diisopropyl phosphonate-4-hydroxyphenylmaleimide alternating copolymer, hydrolyzed, metal salts 441309-61-1DP, 4-Pentenoyl chloride-N-phenylmaleimide alternating copolymer, ester or amide linker assembly **441350-36-3P**, Adipoyl chloride-3-Aminopropyl-1-vinyl ether-3-chlorophenylmaleimide copolymer 441350-37-4P 441350-38-5P 441350-39-6P **441350-40-9P**, 3-Aminopropyl-1-vinyl ether-3-chlorophenylmaleimide-1,6-disocyanatohexane copolymer **441350-41-0P**, 4-Hydroxybutyl vinyl ether-N-phenylmaleimide-1,6-disocyanatohexane copolymer (covalent bond formation between layers of functionalized maleimide-vinyl ether copolymers and crosslinkers to obtain multilayers)

L52 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:31087 Document No. 136:86899 **Die attach**

adhesive compositions containing epoxy resin having allyl or vinyl groups with improved **adhesion**. Bonneau, Mark R.; Shin, Yun K.; Hoang, Gina; Sobczak, Martin (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 1170346 A2 20020109, 6 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-115670 20010704. PRIORITY: US 2000-611899 20000707.

AB The compns., useful in microelectronic applications, comprises (A) 10-80% resin curable by free-radical polymn. or hydrosilation, (b) 0.1-30% epoxy compd. having vinyl or allyl functionality, (c) 0.1-3%

curing agent for the epoxy compd., (d) 0.1-10% curing agent for the resin, and (e) optionally, 20-90% filler. Thus, an **adhesive** compn. comprising proprietary bismaleimide 19.04, 4,4'-bismaleimidodiphenylmethane 0.52, 2,6-diglycidylphenyl allyl ether 1.2%, Ricon 130 (polybutadiene) 2.61, Allied signal VE 1312 (polyester **vinyl ether** resin) 1.57, cinnamyl alc.- **diisocyanate** dimer adduct 3.39, Witco A 174 (methacryloxsilane) 0.4, 1,1-di(tert-amylperoxy)cyclohexane 0.65, 2-ethyl-4-methylimidazole 0.25, and silver flake 70 parts was used for bonding a silicon **die** to a bond pad on a lead frame, showing hot dry **die** shear strength (at 250.degree.) 14.1 kg.

IC ICM C09J163-00
ICS C08G059-20; C09J201-02
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
ST **die** attach **adhesive** microelectronic device;
allyl vinyl epoxy **adhesion** modifier **adhesive**
IT Butadiene rubber, uses
(Ricon 130; **die** attach **adhesive** compns.
contg. epoxy resin having allyl or vinyl groups with improved
adhesion)
IT Epoxy resins, uses
(**adhesion** modifier; **die** attach
adhesive compns. contg. epoxy resin having allyl or vinyl
groups with improved **adhesion**)
IT Polyimides, uses
(bismaleimide-based; **die** attach **adhesive**
compns. contg. epoxy resin having allyl or vinyl groups with
improved **adhesion**)
IT **Adhesives**
(**die** attach **adhesive** compns. contg. epoxy
resin having allyl or vinyl groups with improved **adhesion**
)
IT Acrylic polymers, uses
Polyesters, uses
Polyethers, uses
Polysiloxanes, uses
Polyurethanes, uses
(**die** attach **adhesive** compns. contg. epoxy
resin having allyl or vinyl groups with improved **adhesion**
)
IT Crosslinking agents
Crosslinking catalysts
Microelectronic devices
Semiconductor devices
(**die** attach **adhesive** compns. contg. epoxy
resin having allyl or vinyl groups with improved **adhesion**

for)

IT 15667-10-4, 1,1-Di(tert-amylperoxy)cyclohexane
(90MD; die attach adhesive compns. contg.
epoxy resin having allyl or vinyl groups with improved
adhesion)

IT 96-08-2DP, Limonene dioxide, polymers 3678-15-7DP, Glycidyl
vinyl ether, polymers 102194-47-8DP, polymers
192569-50-9P
(adhesion modifier; die attach
adhesive compns. contg. epoxy resin having allyl or vinyl
groups with improved adhesion)

IT 9003-17-2
(butadiene rubber, Ricon 130; die attach
adhesive compns. contg. epoxy resin having allyl or vinyl
groups with improved adhesion)

IT 286959-46-4, VE 1312
(curing agent; die attach adhesive compns.
contg. epoxy resin having allyl or vinyl groups with improved
adhesion)

IT 931-36-2, 2-Ethyl-4-methylimidazole
(die attach adhesive compns. contg. epoxy
resin having allyl or vinyl groups with improved adhesion
)

IT 386736-60-3P
(die attach adhesive compns. contg. epoxy
resin having allyl or vinyl groups with improved adhesion
)

IT 13676-54-5D, 4,4'-Bismaleimidodiphenylmethane, polymers
(die attach adhesive compns. contg. epoxy
resin having allyl or vinyl groups with improved adhesion
)

L52 ANSWER 5 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
2001:850776 Document No. 135:372823 Die-attach
adhesives with vinyl ether and carbamate
or urea functionality. Musa, Osama M.; Herr, Donald E.
(National Starch and Chemical Investment Holding Corporation, USA).
Eur. Pat. Appl. EP 1156068 A1 20011121, 9 pp. DESIGNATED STATES: R:
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE,
SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP
2001-111271 20010516. PRIORITY: US 2000-573303 20000518.

AB A die attach adhesive comprises (a) 5-30% of a
mixt. of a vinyl ether compd. contg. polar
functionality and an electron acceptor compd., (b) 0.01-10.0% of a
free-radical initiator or photoinitiator, and (c) 70-95% of a
conductive or nonconductive filler, in which the vinyl
ether has the structure [R₁CR₂:CR₃OQXCOY]_nZ, in which n is 1
to 6; R₁, R₂, and R₃ are hydrogen, Me or ethyl; Q is an alkyl or

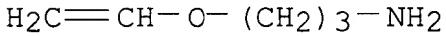
cycloalkyl linear or branched chain having 1 to 12 carbon atoms; an alkylenoxy chain having 1 to 12 carbon atoms, or arom. or fused arom. ring having 3 to 10 carbon atoms and optionally contg. the heteroatoms O, N or S; X and Y are independently O, NR1, or S, with the proviso that both X and Y cannot be oxygen or sulfur; Z is a branched or linear alkane, which may contain cyclic moieties, a siloxane, a polysiloxane, a C1-4 alkoxy-terminated siloxane or polysiloxane, a polyether, a polyester, a polyurethane, a poly(butadiene), or an arom., polyarom., or heteroarom. group. The **adhesives** are suitable for use in microelectronics applications and show enhanced **adhesive** strength compared to compds. that do not contain carbamate, thiocarbamate or **urea** functionality.

IT 66415-55-2DP, reaction products with dimer **diisocyanate**

(die-attach **adhesives** with **vinyl** **ether** and carbamate or **urea** functionality)

RN 66415-55-2 HCPLUS

CN 1-Propanamine, 3-(ethenyloxy)- (9CI) (CA INDEX NAME)



IT 39340-26-6DP, DDI 1410, reaction products with **monovinyl ethers**

(die-attach **adhesives** with **vinyl** **ether** and carbamate or **urea** functionality)

RN 39340-26-6 HCPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C08G018-67

ICS C08G073-12; C09J175-16

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

ST die attach **adhesive vinyl** **ether**

IT Polyimides, preparation

(bismaleimide-based; die-attach **adhesives** with **vinyl** **ether** and carbamate or **urea** functionality)

IT **Adhesives**

(die attach; die-attach **adhesives** with **vinyl** **ether** and carbamate or **urea** functionality)

IT Fluoropolymers, uses

(filler; die-attach **adhesives** with

vinyl ether and carbamate or urea functionality)

IT 27336-16-9DP, reaction products with dimer **diisocyanate**
66415-55-2DP, reaction products with dimer **diisocyanate**

(die-attach **adhesives with vinyl**

ether and carbamate or urea functionality)

IT 39340-26-6DP, DDI 1410, reaction products with **monovinyl ethers**

(die-attach **adhesives with vinyl**

ether and carbamate or urea functionality)

IT 114651-37-5D, reaction products with dimer **diisocyanate**
(die-attach **adhesives with vinyl**

ether and carbamate or urea functionality)

IT 7440-22-4, Silver, uses 9002-84-0, **Polytetrafluoroethylene**
(filler; die-attach **adhesives with**

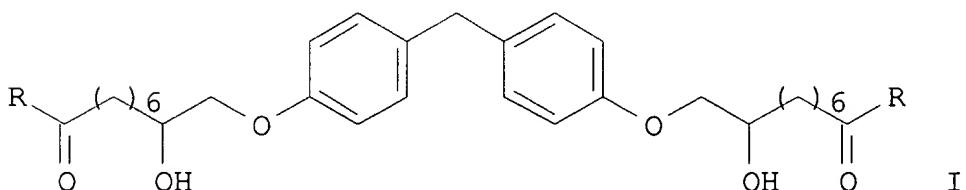
vinyl ether and carbamate or urea

functionality)

L52 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:344473 Document No. 132:348686 Preparation of allylated amides and **die-attach adhesive** prepared from the amides for microelectronic devices. Schultz, Rose Ann; Herr, Donald; Xiao, Chaodong (National Starch and Chemical Investment Holding Corp., USA). Jpn. Kokai Tokkyo Koho JP 2000143597 A2 20000523, 142 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-188897 19990702. PRIORITY: US 1998-PV915097 19980702; US 1999-336082 19990618.

GI



AB [CH₂:CHNR₉CO-Xm]nQ [m = 0,1; n = 1-6; R₉ = H, C₁₋₁₈ alkyl, C₁₋₁₈ alkyleneoxy, allyl, aryl, (un)substituted Ph; X = phenylene, C₆H₄CO₂, C₆H₄O, C₆H₄O₂C, C₆H₄O₂CNH; Q = (a) linear or branched alkyl, alkyloxy, alkylamine, alkylsulfide, alkylene, alkyleneoxy, alkyleneamine, alkylenesulfide, aryl, aryloxy, or arylsulfide each having up to 100 atoms in the chain, (b) urethane represented by formula -R₂-X-CONH-R₃-NH-CO(O-R₃-O-CONH-R₃-NHCO)v-X-R₂-X- (wherein R₂ = C₁₋₁₈ alkyl, aryl, aralkyl; R₃ = alkyl or alkyloxy having up to 100 atoms in the chain), (c) siloxane represented by formula

$-(C(R1)2)e-[Si(R4)2-O]f-Si(R4)2-(C(R1)2)g-$ (wherein R1 = H, C1-5 alkyl; R4 = C1-5 alkyl, aryl; e, g = 1-10; f = 1-50), etc.] are prep'd. Thus, addn. reaction of bisphenol F with 1,2-epoxy-9-decene in the presence of benzylidimethylamine in THF at 70.degree. for 7 h followed by oxidn. with KMnO4 in THF gave dicarboxylic acid (I; R = OH) which was amidated with diallylamine using DCC in CH2Cl2 to give diallylamide I [R = N(CH2CH:CH2)2].

IT 39340-26-6DP, DDI 1410, reaction product with m-nitrobenzyl alc., reduced, maleimide deriv.

(prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

RN 39340-26-6 HCPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

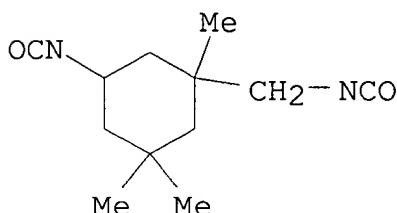
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 4098-71-9, Isophorone **diisocyanate**

(prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

RN 4098-71-9 HCPLUS

CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



IC C07C233-05; C07C235-06; C08F026-02; C08F299-00; C08G018-83; C08G063-685; C08G063-695; C08G065-00; C08G069-00; C08G075-02; C08G077-26; C09J139-00; C09J155-00; C09J167-06; C09J175-14; C09J183-07; H01L021-52

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 25, 27, 76

ST allylated amide prep'd **die attach adhesive**; microelectronic device **adhesive**

IT Fatty acids, uses

(C18-unsatd., dimers and trimers, reaction product with propargyl alc. and lauryl mercaptan; prep'n. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

IT Butadiene rubber, reactions

(maleated; prep'n. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

IT **Adhesives**

Microelectronic devices

Microelectronics

(prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

IT 268747-00-8

(adhesive; prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

IT 9003-17-2

(butadiene rubber, maleated; prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

IT 253661-99-3P 268747-03-1P

(prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)IT 107-19-7DP, Propargyl alcohol, reaction product with dimer diol (Pripol 2033) and lauryl mercaptan 112-55-0DP, Lauryl mercaptan, reaction product with dimer diol (Pripol 2033) and propargyl alc. 39340-26-6DP, DDI 1410, reaction product with m-nitrobenzyl alc., reduced, maleimide deriv. 102114-99-8P, N-Allylpalmitamide 158516-85-9DP, Pripol 2033, diacryloyl ester deriv. 158516-85-9DP, Pripol 2033, **divinyl ether** deriv.

158516-85-9DP, Pripol 2033, reaction product with 6-maleimidocaproic acid 203193-13-9P 253661-94-8P 253661-95-9P 253662-01-0P 253662-10-1P 268747-01-9P 268747-02-0P

(prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)IT 9003-18-3DP, Poly(butadiene-acrylonitrile), nitrile rubber, amine-terminated, Hycar ATBN 1300X42, maleimide derivs.; (prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic acid 108-31-6, 2,5-Furandione, reactions 111-34-2, Butyl vinyl ether 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3, p-Nitrobenzoyl chloride 124-02-7, Diallylamine 619-25-0, m-Nitrobenzyl alcohol 620-92-8, Bisphenol F 814-68-6, Acryloyl chloride 1585-90-6, N-(2-Hydroxyethyl)maleimide 2451-62-9, Tris(epoxypropyl)isocyanurate 4098-71-9, Isophorone diisocyanate 7300-91-6, N-(4-Hydroxyphenyl)maleimide 85721-25-1, 1,2-Epoxy-9-decene

(prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

IT 55750-53-3P, 6-Maleimidohexanoic acid 253662-09-8P

(prepn. of allylated amides and **die-attach adhesive** prep'd. from amides for microelectronic devices)

IT 107-11-9DP, Allylamine, reaction product with maleinized

poly(butadiene) (Rikon 131MA12) 124-02-7DP, Diallylamine, reaction product with aci chloride of dimer acid (Empol 1024) 126968-43-2DP, Versamine 552, p-nitrobenzamide deriv., reduced, maleimide deriv. 126968-43-2DP, Versamine 552, reaction product with maleic anhydride (bismaleimide deriv.) (prepn. of allylated amides and die-attach adhesive prepd. from amides for microelectronic devices)

L52 ANSWER 7 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
 2000:268555 Document No. 132:309393 Curable compositions and adhesive compositions for manufacture of circuit parts and printed circuit boards. Tong, Quinn K.; Ma, Bodan; Xiao, Chaodong (National Starch and Chemical Investment Holding Corp., USA). Jpn. Kokai Tokkyo Koho JP 2000119335 A2 20000425, 111 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-188845 19990702. PRIORITY: US 1998-PV91490 19980702; US 1999-336324 19990618.

AB Title curable compns. contain (A) maleimides and (B) curing initiators consisting of free-radical initiators and/or photopolymer initiators. Title adhesive compns. contain (C) vinyl compds. and B. Markush structures of A and C are given in the document. Thus, a compn. contg. Versalink P 650 (bismaleimide), cyclohexanedimethanol divinyl ether, and Irgacure 651 (.alpha.,.alpha.-dimethoxy-.alpha.-phenylacetophenone) was irradiated with UV light to bond a Si die.

IT 39340-26-6DP, DDI 1410, bismaleimide derivs.
 (maleimide-contg. photocurable adhesive compns. for manuf. of printed circuit boards)

RN 39340-26-6 HCPLUS

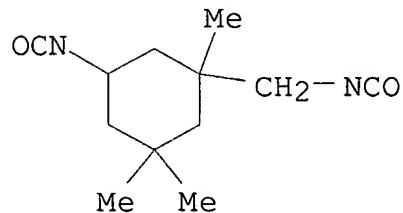
CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 4098-71-9, 5-Isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane
 (maleimide-contg. photocurable adhesive compns. for manuf. of printed circuit boards)

RN 4098-71-9 HCPLUS

CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



IC ICM C08F022-40
ICS C08F002-48; C08F299-02; C09J157-00; C09J201-00; G03F007-035;
C07D207-452

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76

ST maleimide photocurable **adhesive** printed circuit board

IT Fatty acids, uses
(C18-unsatd., dimers and trimers, Empol 1024, reaction products
with propargyl alc. and laurylmercaptan; maleimide-contg.
photocurable **adhesive** compns. for manuf. of printed
circuit boards)

IT Nitrile rubber, uses
(amine-terminated, Hycar ATBN 1300X42, bismaleimide derivs.;
maleimide-contg. photocurable **adhesive** compns. for
manuf. of printed circuit boards)

IT Polyimides, uses
(bismaleimide-based; maleimide-contg. photocurable
adhesive compns. for manuf. of printed circuit boards)

IT Electronic device fabrication
Printed circuit boards
(maleimide-contg. photocurable **adhesive** compns. for
manuf. of printed circuit boards)

IT **Adhesives**
(photocurable; maleimide-contg. photocurable **adhesive**
compns. for manuf. of printed circuit boards)

IT 24650-42-8, Irgacure 651
(maleimide-contg. photocurable **adhesive** compns. for
manuf. of printed circuit boards)

IT 55750-53-3P, 6-Maleimidocaproic acid 253661-99-3P 253662-00-9P
(maleimide-contg. photocurable **adhesive** compns. for
manuf. of printed circuit boards)

IT 107-05-1DP, Allyl chloride, reaction products with dimer diol
107-19-7DP, Propargyl alcohol, reaction products with dimer acid and
laurylmercaptan 108-31-6DP, Maleic anhydride, reaction products
with dimer diamine derivs. 111-34-2DP, Butyl **vinyl**
ether, reaction products with dimer diol 112-55-0DP,
Laurylmercaptan, reaction products with acetylene-terminated dimer
acid 122-04-3DP, p-Nitrobenzoyl chloride, reaction products with
dimer diamine and maleic anhydride 619-25-0DP, reaction products
with dimer **diisocyanate**, bismaleimide derivs.
39340-26-6DP, DDI 1410, bismaleimide derivs. 55750-53-3DP,
6-Maleimidocaproic acid, reaction products with dimer diol
116503-80-1P 126968-43-2DP, Versamine 552, bismaleimide derivs.
158516-85-9DP, Pripol 2033, bismaleimide derivs. 203193-13-9P
253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P
253662-01-0P 265111-20-4P
(maleimide-contg. photocurable **adhesive** compns. for

manuf. of printed circuit boards)

IT 56-81-5, Glycerol, reactions 108-31-6, Maleic anhydride, reactions 112-67-4, Palmitoyl chloride 589-16-2, 4-Ethylaniline 619-25-0 1319-82-0, Aminocaproic acid 1585-90-6, N-(2-Hydroxyethyl)maleimide 2451-62-9, Tris(epoxypropyl) isocyanurate 4098-71-9, 5-Isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane 27030-32-6, Decanediol 43048-02-8 (maleimide-contg. photocurable **adhesive** compns. for manuf. of printed circuit boards)

IT 9003-18-3P (nitrile rubber, amine-terminated, Hycar ATBN 1300X42, bismaleimide derivs.; maleimide-contg. photocurable **adhesive** compns. for manuf. of printed circuit boards)

L52 ANSWER 8 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
 2000:34590 Document No. 132:94357 Allylated amide compounds and **die attach adhesives** prepared therefrom. Schultz, Rose Ann; Herr, Donald; Xiao, Chaodong (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 970946 A2 20000112, 66 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112722 19990701. PRIORITY: US 1998-91509 19980702; US 1999-336082 19990618.

AB The title compds. comprise $[\text{CH}_2:\text{CHCH}_2\text{NR}_9\text{COX}_m]^n\text{Q}$ [m is 0 or 1; n is 1 to 6; R9 is H, an alkyl group having 1 to 18 carbon atoms, an alkyleneoxy group having 1 to 18 carbon atoms, an allyl group, an aryl group, or a substituted aryl group; X is an arom. group; Q is a linear or branched chain alkyl, alkyloxy, alkyl amine, alkyl sulfide, alkylene, alkyleneoxy, alkyleneamine, alkylene sulfide, aryl, aryloxy, or aryl sulfide species having up to about 100 atoms in the chain, a urethane, a siloxane, or an ester].

IT 39340-26-6DP, DDI 1410, reaction products with m-nitrobenzyl alc., hydrogenated, bismaleimides (allylated amide compds. and **die attach adhesives** prep'd. therefrom)

RN 39340-26-6 HCPLUS

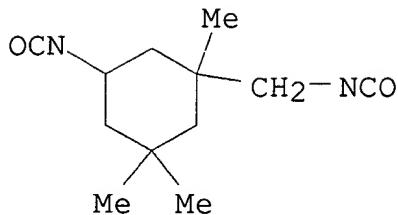
CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 4098-71-9, 5-Isocyanato-1-(isocyanatomethyl)-1, 3, 3-trimethylcyclohexane (allylated amide compds. and **die attach adhesives** prep'd. therefrom)

RN 4098-71-9 HCPLUS

CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



IC ICM C07C235-76
 ICS C07C235-20; C07C233-05; C09J139-00; H01L021-58
 CC 38-3 (Plastics Fabrication and Uses)
 ST allylated amide **adhesive die** attach
 IT Fatty acids, preparation
 (C18-unsatd., dimers and trimers, reaction products with
 diallylamine; allylated amide compds. and **die** attach
 adhesives prep'd. therefrom)
 IT **Adhesives**
 Semiconductor devices
 (allylated amide compds. and **die** attach
 adhesives prep'd. therefrom)
 IT Nitrile rubber, preparation
 (amine-terminated, maleimides; allylated amide compds. and
 die attach **adhesives** prep'd. therefrom)
 IT Polyimides, preparation
 (bismaleimide-based; allylated amide compds. and **die**
 attach **adhesives** prep'd. therefrom)
 IT Butadiene rubber, preparation
 (maleated, reaction products with diallylamine; allylated amide
 compds. and **die** attach **adhesives** prep'd.
 therefrom)
 IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and
 lauryl mercaptan 108-31-6DP, Maleic anhydride, bismaleimides with
 hydrogenated dimer diamine-p-nitrobenzoyl chloride adducts
 111-34-2DP, Butyl **vinyl ether**, reaction products
 with dimer diol 112-55-0DP, Lauryl mercaptan, reaction products
 with dimer acid and propargyl alc. 122-04-3DP, p-Nitrobenzoyl
 chloride, reaction products with dimer diamine, hydrogenated,
 bismaleimides 814-68-6DP, Acryloyl chloride, reaction products
 with dimer diol **39340-26-6DP**, DDI 1410, reaction products
 with m-nitrobenzyl alc., hydrogenated, bismaleimides 76620-00-3P
 102114-99-8P 126968-43-2DP, Versamine 552, reaction products with
 p-nitrobenzoyl chloride, hydrogenated, bismaleimides
 158516-85-9DP, Priol 2033, reaction products with Bu **vinyl**
 ether 203193-13-9P 253661-94-8P 253661-95-9P
 253661-97-1P 253661-98-2P 253662-01-0P 253662-10-1P
 253662-32-7P, Azeloylbis(diallylamine)-Versalink P-650 copolymer
 (allylated amide compds. and **die** attach

IT **adhesives** prep'd. therefrom)
 55750-53-3P, 6-Maleimidocaproic acid 253661-99-3P 253662-00-9P
 253662-09-8P
 (allylated amide compds. and **die** attach
adhesives prep'd. therefrom)
 IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic
 acid 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride
 124-02-7, Diallylamine 589-16-2, 4-Ethyl aniline 619-25-0
 620-92-8, Bisphenol F 1585-90-6 2451-62-9,
 Tris(epoxypropyl)isocyanurate **4098-71-9**,
 5-Isocyanato-1-(isocyanatomethyl)-1, 3, 3-trimethylcyclohexane
 7300-91-6 55750-53-3D, 6-Maleimidocaproic acid, reaction products
 with dimer diol 85721-25-1
 (allylated amide compds. and **die** attach
adhesives prep'd. therefrom)
 IT 9003-17-2P
 (butadiene rubber, maleated, reaction products with diallylamine;
 allylated amide compds. and **die** attach
adhesives prep'd. therefrom)
 IT 9003-18-3P
 (nitrile rubber, amine-terminated, maleimides; allylated amide
 compds. and **die** attach **adhesives** prep'd.
 therefrom)

L52 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
 2000:12715 Document No. 132:79493 **Die** attach

adhesives for use in microelectronics. Herr, Donald;
 Schultz, Rose Ann; Xu, Ping Yong (National Starch and Chemical
 Investment Holding Corp., USA). Eur. Pat. Appl. EP 969065 A2
 20000105, 44 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR,
 GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO.
 (English). CODEN: EPXXDW. APPLICATION: EP 1999-112734 19990701.
 PRIORITY: US 1998-91492 19980702; US 1999-336245 19990618.

AB A curable **adhesive** compn. for use in bonding an electronic
 component to a substrate comprises a maleimide compd. and a curing
 initiator selected from the group consisting of a free-radical
 initiator, a photoinitiator, and a combination of those.

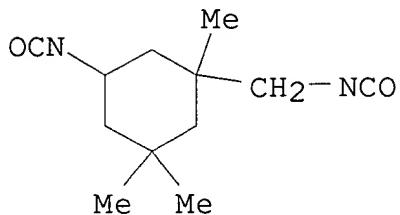
IT **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc.
 derivs., reduced, maleimide derivs.
 (**die** attach **adhesives** for use in
 microelectronics)

RN 39340-26-6 HCAPLUS
 CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **4098-71-9**, 5-Isocyanato-1-(isocyanatomethyl)-1, 3,
 3-trimethylcyclohexane **39340-26-6**, DDI 1410
 (**die** attach **adhesives** for use in

microelectronics)
 RN 4098-71-9 HCPLUS
 CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-
 (9CI) (CA INDEX NAME)



RN 39340-26-6 HCPLUS
 CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 IC ICM C09J004-00
 ICS C08F290-06; C08F299-02; H05K003-38
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 76
 ST maleimide die attach **adhesive** microelectronics
 IT Fatty acids, reactions
 (C18-unsatd., dimers and trimers, Empol 1024, reaction products
 with propargyl alc. and lauryl mercaptan; die attach
adhesives for use in microelectronics)
 IT Nitrile rubber, preparation
 (amine-terminated, Hycar ATBN 1300X42, maleimide derivs.;
 die attach **adhesives** for use in
 microelectronics)
 IT **Adhesives**
 Semiconductor devices
 (die attach **adhesives** for use in
 microelectronics)
 IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and
 lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products
 with amino-terminated acrylonitrile-butadiene copolymer
 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and
 propargyl alc. 39340-26-6DP, DDI 1410, m-nitrobenzyl alc.
 derivs., reduced, maleimide derivs. 55750-53-3P, 6-Maleimidocaproic
 acid 76620-00-3P 158516-85-9DP, Pripol 2033, **divinyl**
ether derivs. 203193-13-9P 253661-94-8P 253661-95-9P
 253661-97-1P 253661-98-2P 253662-01-0P 253681-46-8P
 253681-47-9P
 (die attach **adhesives** for use in
 microelectronics)

IT 253661-99-3P 253662-00-9P
 (die attach **adhesives** for use in
 microelectronics)

IT 60-32-2, 6-Aminocaproic acid 111-34-2, Butyl **vinyl**
ether 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl
 chloride 589-16-2, 4-Ethyl aniline 619-25-0 814-68-6, Acryloyl
 chloride 1585-90-6 2451-62-9, Tris(epoxypropyl)isocyanurate
4098-71-9, 5-Isocyanato-1-(isocyanatomethyl)-1, 3,
 3-trimethylcyclohexane **39340-26-6**, DDI 1410 43048-02-8
 158516-85-9, Pripol 2033
 (die attach **adhesives** for use in
 microelectronics)

IT 9003-18-3P
 (nitrile rubber, amine-terminated, Hycar ATBN 1300X42, maleimide
 derivs.; die attach **adhesives** for use in
 microelectronics)

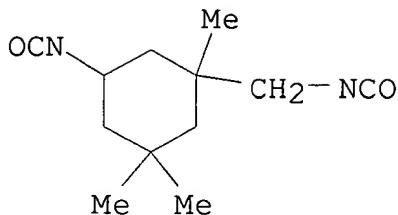
L52 ANSWER 10 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
 2000:12709 Document No. 132:79317 Compositions for use in the
 fabrication of components on printed circuit boards. Tong, Quinn
 K.; Ma, Bodan; Xiao, Chaodong (National Starch and Chemical
 Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969059 A2
 20000105, 45 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR,
 GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO.
 (English). CODEN: EPXXDW. APPLICATION: EP 1999-112720 19990701.
 PRIORITY: US 1998-91490 19980702; US 1999-226324 19990618.

AB In-situ-curable compns. for fabrication of reworkable elec. circuit
 components and printed circuit board components contain .gtoreq.1
 mono- or polyfunctional maleimide compds., .gtoreq.1 mono- or
 polyfunctional vinyl compds. other than maleimide compds., or a
 combination of maleimide and vinyl compds., a free-radical initiator
 or photoinitiator, and, optionally, .gtoreq.1 filler. A typical
adhesive for bonding a Si **die** on a FR-4 laminate
 contained Versalink P-650 (a bismaleimide prepnd. from
 polytetramethylene glycol di-p-aminobenzoate) 1.01,
 cyclohexanedimethanol **divinyl ether** 0.19,
 .alpha.,.alpha.-dimethoxy-.alpha.-phenylacetophenone 0.06, and
 hydrophilic fused silica 3.78 g.

IT **4098-71-9**, Isophorone **diisocyanate**
 (compn. component precursor; in-situ-curable compns. for
 fabrication of reworkable components on printed circuit boards)

RN 4098-71-9 HCPLUS

CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-
 (9CI) (CA INDEX NAME)



IT 39340-26-6DP, DDI 1410, reaction products with nitrobenzyl
alc., maleimide derivs.
(compn. component; in-situ-curable compns. for fabrication of
reworkable components on printed circuit boards)

RN 39340-26-6 HCAPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00
ICS C08F290-06; C08F299-02; H05K003-38

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 76

ST reworkable printed circuit board component polyfunctional vinyl
compd compn; cyclohexanedimethanol **divinyl ether**
photocurable **die attach adhesive**;
polyoxytetramethylene bismaleimide photocurable
die attach adhesive; maleimide polyfunctional
reworkable printed circuit board component

IT **Adhesives**
(photocurable; in-situ-curable compns. for fabrication of
reworkable components on printed circuit boards)

IT Polyoxyalkylenes, preparation
Polyoxyalkylenes, preparation
(polyimide-, bismaleimide-based; photocured **adhesive**
for bonding silicon **die** to FR-4 laminates)

IT Polyimides, preparation
Polyimides, preparation
(polyoxyalkylene-, bismaleimide-based; photocured
adhesive for bonding silicon **die** to FR-4
laminates)

IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic
acid 108-31-6, 2,5-Furandione, reactions 112-47-0,
1,10-Decanediol 112-67-4, Palmitoyl chloride 589-16-2,
4-Ethylaniline 619-25-0 1585-90-6, N-(2-Hydroxyethyl)maleimide
2451-62-9, Triglycidyl isocyanurate 4098-71-9, Isophorone
diisocyanate 7300-91-6, N-(4-Hydroxyphenyl)maleimide
(compn. component precursor; in-situ-curable compns. for
fabrication of reworkable components on printed circuit boards)

IT 107-19-7DP, Propargyl alcohol, reaction products with C36 fatty acid dimer and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with aminobenzamide of C36 fatty acid dimer diamines 111-34-2DP, Butyl **vinyl ether**, reaction products with C36 fatty dimer diol 112-55-0DP, Lauryl mercaptan, reaction products with C36 fatty acid dimer and lauryl mercaptan 122-04-3DP, p-Nitrobenzoyl chloride, reaction products with C36 fatty acid dimer diamine, maleimide derivs. 619-25-0DP, reaction products with C36 fatty **diisocyanate**, maleimide derivs. 814-68-6DP, Acryloyl chloride, reaction products with C36 fatty dimer diol **39340-26-6DP**, DDI 1410, reaction products with nitrobenzyl alc., maleimide derivs. 55750-53-3DP, esters with C36 fatty diol 76620-00-3P, N-(4-Ethylphenyl)maleimide 126968-43-2DP, Versamine 552, reaction products with nitrobenzoyl chloride, maleimide derivs. 158516-85-9DP, Pripol 2033, reaction products with Bu **vinyl ether** 203193-13-9P 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P 253662-01-0P
(compr. component; in-situ-curable compns. for fabrication of reworkable components on printed circuit boards)

IT 54667-43-5DP, Versalink 650, maleimide derivs., polymers with cyclohexanediol **divinyl ether**
(compr. component; photocured **adhesive** for bonding silicon **die** to FR-4 laminates)

IT 253779-81-6P
(photocured **adhesive** for bonding silicon **die** to FR-4 laminates)

L52 ANSWER 11 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
2000:12692 Document No. 132:79316 Circuit component composition comprising allylated amide compounds. Schultz, Rose Ann; Herr, Donald; Xiao, Chaodong (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969028 A2 20000105, 52 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112742 19990701. PRIORITY: US 1998-91505 19980702; US 1999-336080 19990618.

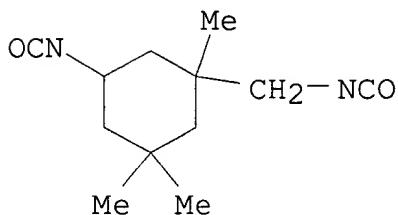
AB Reworkable circuit components are prep'd. from compns. contg. allylated amide compds., a curing initiator, optionally fillers and additives, and optionally one or more mono- or polyfunctional vinyl compds. The compns. are cured in situ. A typical **die** -attach **adhesive** contained N,N-diallylazelaamide 0.521, Versalink P-650 (bismaleimide) 1.678, tert-Bu 2-ethylhexanoate 0.043, Sartomer 633 (metal diacrylate) 0.023, .gamma.-methacryloyloxypropyltrimethoxysilane 0.024, and Ag powder 5.148 g.

IT **4098-71-9**, Isophorone **diisocyanate**
(allylated amide-reactive compd. precursor; in-situ-curable compns. contg. allylated amide compds. for reworkable elec.)

circuit components)

RN 4098-71-9 HCPLUS

CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-
(9CI) (CA INDEX NAME)



IT 39340-26-6DP, DDI 1410, reaction products with nitrobenzyl
alc., maleimide derivs.

(allylated amide-reactive compd.; in-situ-curable compns. contg.
allylated amide compds. for reworkable elec. circuit components)

RN 39340-26-6 HCPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C08F290-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 76

ST reworkable elec circuit component in situ cured; **die**
attach **adhesive** diallylazelaamide bismaleimide in situ
prep'd copolymer; allylated amide elec circuit component compn in
situ curable

IT **Adhesives**

(conductive, **die-attach**; in-situ-curable compns. contg.
allylated amide compds. for reworkable elec. circuit components)

IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic
acid 108-31-6, 2,5-Furandione, reactions 112-47-0,
1,10-Decanediol 589-16-2, 4-Ethylaniline 619-25-0 1585-90-6
2451-62-9, Triglycidyl isocyanurate **4098-71-9**, Isophorone
disocyanate 7300-91-6

(allylated amide-reactive compd. precursor; in-situ-curable
compns. contg. allylated amide compds. for reworkable elec.
circuit components)

IT 107-19-7DP, Propargyl alcohol, reaction products with C36 fatty acid
dimers and lauryl mercaptan 111-34-2DP, Butyl **vinyl**
ether, reaction products with C36 fatty acid dimer diol
112-55-0DP, Lauryl mercaptan, reaction products with C36 fatty acid
dimers and propargyl alc. 122-04-3DP, p-Nitrobenzoyl chloride,
reaction products with C36 fatty acid dimer diamine, maleimide
derivs. 619-25-0DP, reaction products with C36 fatty acid dimer

diisocyanate, maleimide derivs. 814-68-6DP, Acryloyl chloride, esters with C36 fatty acid dimer diol 39340-26-6DP, DDI 1410, reaction products with nitrobenzyl alc., maleimide derivs. 55750-53-3DP, esters with C36 fatty acid dimers 55750-53-3P 76620-00-3P, N-(4-Ethylphenyl)maleimide 126968-43-2DP, Versamine 552, reaction products with nitrobenzoyl chloride, maleimide derivs. 158516-85-9DP, Pripol 2033, reaction products with Bu vinyl ether 203193-13-9P 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P 253662-01-0P
 (allylated amide-reactive compd.; in-situ-curable compns. contg. allylated amide compds. for reworkable elec. circuit components)

IT 253675-69-3P
 (in-situ-cured elec. conductive **die-attach adhesive**)

L52 ANSWER 12 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
 1997:164553 Document No. 126:158848 Active energy beam-curable coating compositions containing hydroxy-substituted fluoroolefin polymers, acrylic monomers, and polyisocyanates. Miura, Ryuichi; Kodama, Shunichi (Asahi Glass Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08319455 A2 19961203 Heisei, 6 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 1995-128580 19950526.

AB Title compns. giving weather-resistant cured films contain reaction products prep'd. by linking OH- and F(.gtoreq.5%)-contg. fluoroolefin polymers with OH-contg. (meth)acrylate monomers through **diisocyanates** and/or triisocyanates having NCO groups with different reactivity. Thus, after 12 parts 2-hydroxyethyl acrylate was added dropwise into 22 parts LDI (2,6-**diisocyanatocaproic** acid Me ester) at 40.degree. for 5 h with stirring under dried N and then treated with a soln. of 186 parts 50:17:5:8 (mol) chlorotrifluoroethylene-cyclohexyl vinyl ether-Et vinyl ether-hydroxybutyl vinyl ether copolymer (OH value 40) in 220 parts toluene (I) at 60.degree. for 5 h under stirring, 220 parts a 1:1 mixt. of 1,6-hexanediol diacrylate and trimethylolpropane triacrylate was added and I was vacuum distd. off to obtain a coating compn., in 100 parts of which 3 parts Darocure 1173 was dispersed, applied to an Al plate at a 0.01-mm thickness, and cured by UV irradn. for 20 s to give a film showing gloss retention .gtoreq.80% after 3000 h in the sunshine weatherometer test.

IT 186459-76-7P 186459-77-8P 186708-26-9P
 186708-27-0P 186776-63-6P

(active energy-curable coatings contg. hydroxy-substituted fluoroolefin polymers, hydroxy-substituted (meth)acrylic monomers, and polyisocyanates)

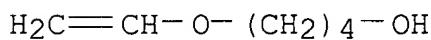
RN 186459-76-7 HCPLUS

CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, polymer with

chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol,
 (ethenyloxy)cyclohexane, ethoxyethene, 2-ethyl-2-[(1-oxo-2-
 propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 1,6-hexanediyl
 di-2-propenoate and 2-hydroxyethyl 2-propenoate (9CI) (CA INDEX
 NAME)

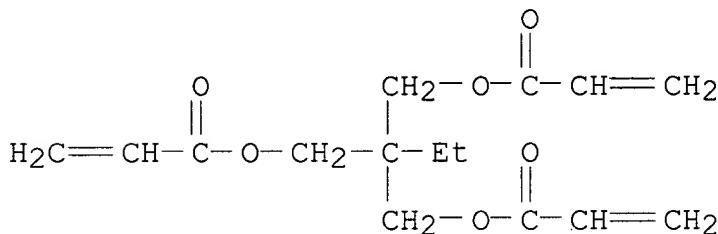
CM 1

CRN 17832-28-9
 CMF C6 H12 O2



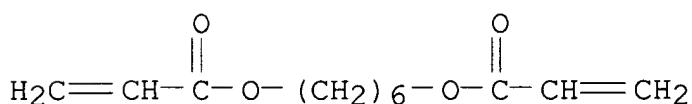
CM 2

CRN 15625-89-5
 CMF C15 H20 O6



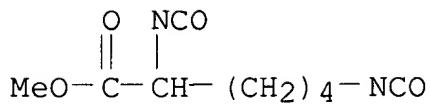
CM 3

CRN 13048-33-4
 CMF C12 H18 O4

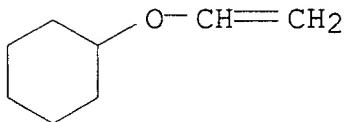


CM 4

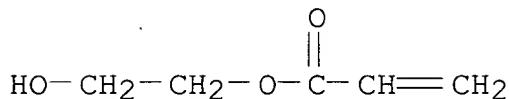
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 CMF C9 H12 N2 O4



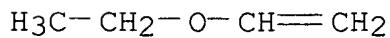
CM 5

CRN 2182-55-0
CMF C8 H14 O

CM 6

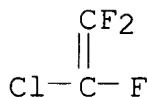
CRN 818-61-1
CMF C5 H8 O3

CM 7

CRN 109-92-2
CMF C4 H8 O

CM 8

CRN 79-38-9
CMF C2 Cl F3



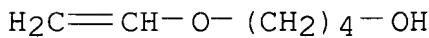
RN 186459-77-8 HCPLUS

CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene, 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 1,6-hexanediyl di-2-propenoate and 2-hydroxypropyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 17832-28-9

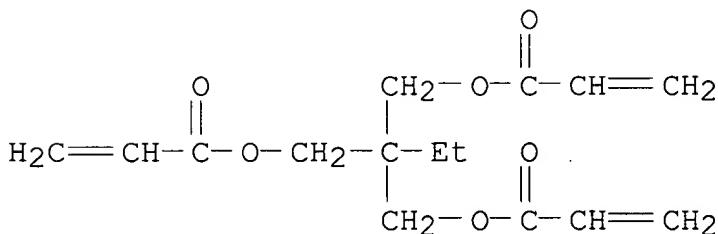
CMF C6 H12 O2



CM 2

CRN 15625-89-5

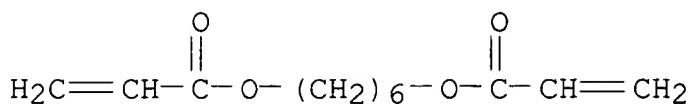
CMF C15 H20 O6



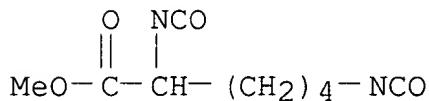
CM 3

CRN 13048-33-4

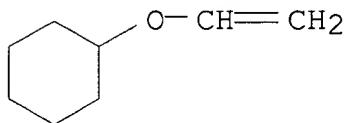
CMF C12 H18 O4



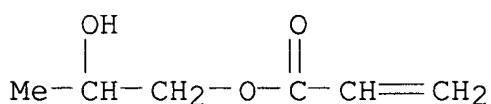
CM 4

CRN 4460-02-0
CMF C9 H12 N2 O4

CM 5

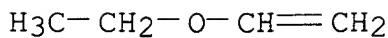
CRN 2182-55-0
CMF C8 H14 O

CM 6

CRN 999-61-1
CMF C6 H10 O3

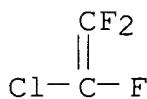
CM 7

CRN 109-92-2
CMF C4 H8 O



CM 8

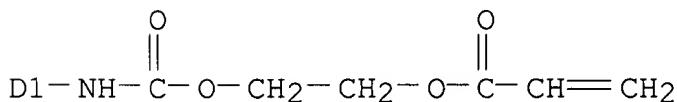
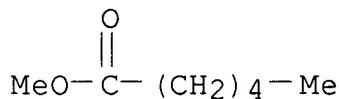
CRN 79-38-9
CMF C2 Cl F3



RN 186708-26-9 HCPLUS
CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, adduct with 2-hydroxyethyl 2-methyl-2-propenoate (1:1), polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene, 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 1,6-hexanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

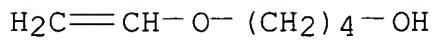
CRN 186676-57-3
CMF C14 H20 N2 O7
CCI IDS



D1-NCO

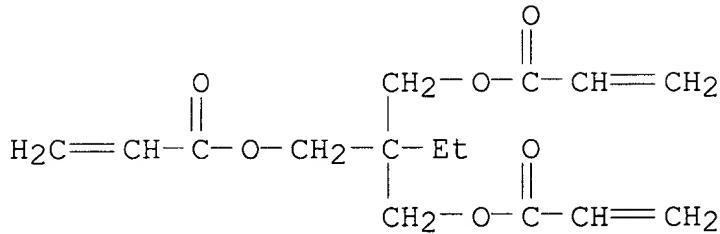
CM 2

CRN 17832-28-9
 CMF C6 H12 O2



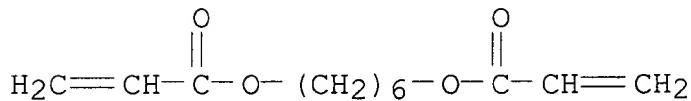
CM 3

CRN 15625-89-5
 CMF C15 H20 O6



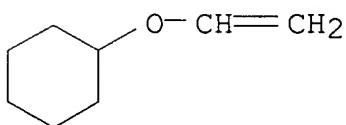
CM 4

CRN 13048-33-4
 CMF C12 H18 O4

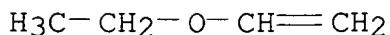


CM 5

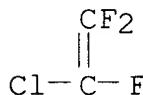
CRN 2182-55-0
 CMF C8 H14 O



CM 6

CRN 109-92-2
CMF C4 H8 O

CM 7

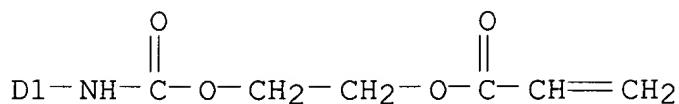
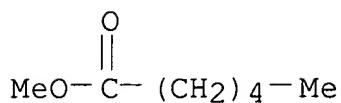
CRN 79-38-9
CMF C2 Cl F3

RN 186708-27-0 HCAPLUS

CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, adduct with 2-hydroxyethyl 2-methyl-2-propenoate (1:1), polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, [(ethenyloxy)methyl]oxirane, 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 1,6-hexanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

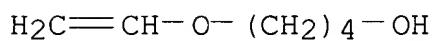
CRN 186676-57-3
CMF C14 H20 N2 O7
CCI IDS



D1-NCO

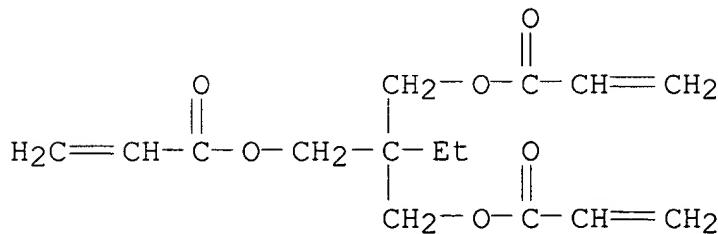
CM 2

CRN 17832-28-9
 CMF C6 H12 O2



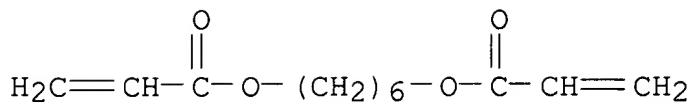
CM 3

CRN 15625-89-5
 CMF C15 H20 O6

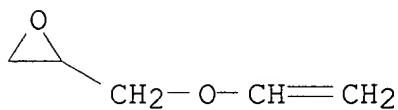


CM 4

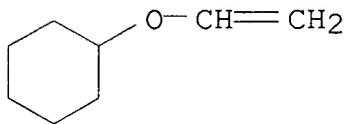
CRN 13048-33-4
 CMF C12 H18 O4



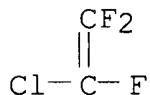
CM 5

CRN 3678-15-7
CMF C5 H8 O2

CM 6

CRN 2182-55-0
CMF C8 H14 O

CM 7

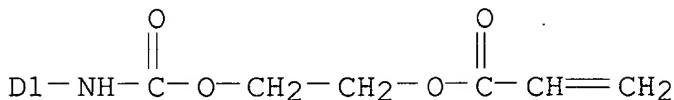
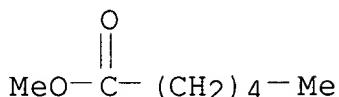
CRN 79-38-9
CMF C2 Cl F3

RN 186776-63-6 HCAPLUS
 CN Hexanoic acid, 2(or 6)-isocyanato-6(or 2)-[[2-[(1-oxo-2-propenyl)oxy]ethoxy]carbonyl]amino]-, methyl ester, polymer with chlorotrifluoroethene, 4-(ethenyl)oxy-1-butanol, (ethenyl)oxy)cyclohexane, 3-(ethenyl)oxy)-1-propanamine, 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl

di-2-propenoate and 1,6-hexanediyI di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

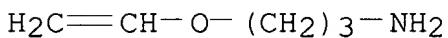
CRN 186676-57-3
CMF C14 H20 N2 O7
CCI IDS



D1 – NCO

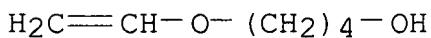
CM 2

CRN 66415-55-2
CMF C5 H11 N O



CM 3

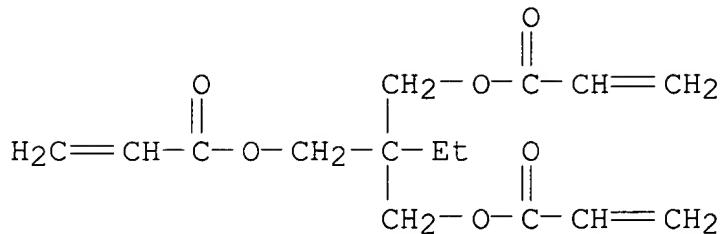
CRN 17832-28-9
CMF C6 H12 O2



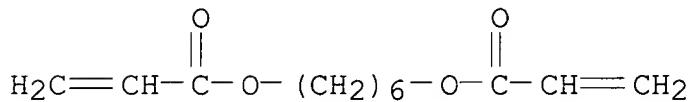
CM 4

CRN 15625-89-5

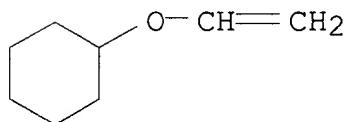
CMF C15 H20 O6



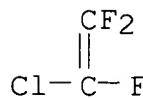
CM 5

CRN 13048-33-4
CMF C12 H18 O4

CM 6

CRN 2182-55-0
CMF C8 H14 O

CM 7

CRN 79-38-9
CMF C2 Cl F3

IT 186708-28-1P

(coatings; active energy-curable coatings contg.
hydroxy-substituted fluoroolefin polymers, hydroxy-substituted
(meth)acrylic monomers, and polyisocyanates)

RN 186708-28-1 HCPLUS

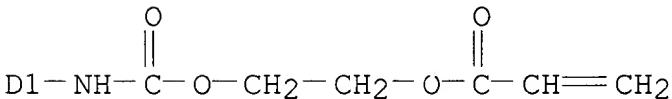
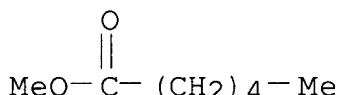
CN Hexanoic acid, 2,6-diisocyanato-, methyl ester, adduct with
2-hydroxyethyl 2-methyl-2-propenoate (1:1), chlorotrifluoroethene,
4-(ethenyloxy)-1-butanol, (ethenyloxy)cyclohexane, ethoxyethene,
2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
di-2-propenoate, 1,6-hexanediyl di-2-propenoate and Ripoxy R 820
(9CI) (CA INDEX NAME)

CM 1

CRN 186676-57-3

CMF C14 H20 N2 O7

CCI IDS



D1-NCO

CM 2

CRN 87004-06-6

CMF Unspecified

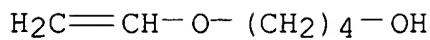
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

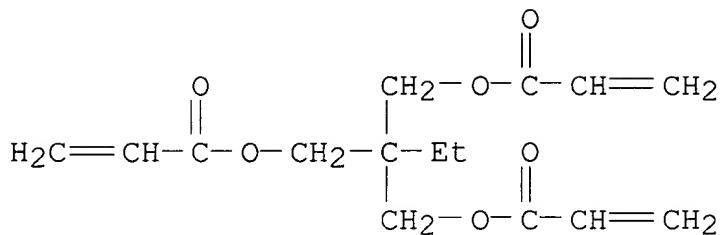
CRN 17832-28-9

CMF C6 H12 O2



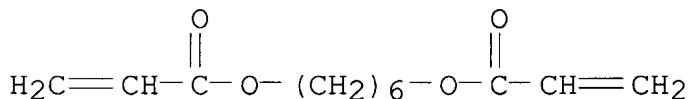
CM 4

CRN 15625-89-5
 CMF C15 H20 O6



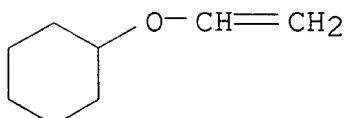
CM 5

CRN 13048-33-4
 CMF C12 H18 O4



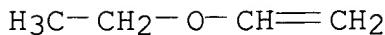
CM 6

CRN 2182-55-0
 CMF C8 H14 O



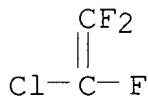
CM 7

CRN 109-92-2
 CMF C4 H8 O



CM 8

CRN 79-38-9
 CMF C2 Cl F3



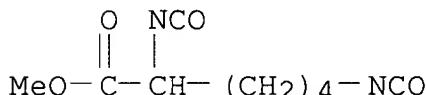
IC ICM C09D175-04
 ICS C09D175-04; C09D127-12; C08G018-65; C08G018-67; C08G018-73
 CC 42-10 (Coatings, Inks, and Related Products)
 IT 15396-00-6DP, KBM 9007, reaction products with
 chlorotrifluoroethylene-cyclohexyl vinyl ether-Et vinyl
 ether-hydroxybutyl vinyl ether copolymer and polyisocyanates and
 acrylic monomers 88795-12-4DP, Chlorotrifluoroethylene-cyclohexyl
 vinyl ether-ethyl vinyl ether-hydroxybutyl vinyl ether copolymer,
 reaction products with isocyanatopropyltrimethoxysilane and
 polyisocyanates and (meth)acrylic monomers **186459-76-7P**
186459-77-8P 186676-73-3DP, reaction products with
 isocyanates and hydroxy-substituted fluoropolymers
186708-26-9P **186708-27-0P** 186713-03-1P
186776-63-6P 186843-52-7P
 (active energy-curable coatings contg. hydroxy-substituted
 fluoroolefin polymers, hydroxy-substituted (meth)acrylic
 monomers, and polyisocyanates)
 IT **186708-28-1P**
 (coatings; active energy-curable coatings contg.
 hydroxy-substituted fluoroolefin polymers, hydroxy-substituted
 (meth)acrylic monomers, and polyisocyanates)

L52 ANSWER 13 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
 1997:131878 Document No. 126:132734 One-component air-curable coating
 compositions containing fluoroolefin polymers, polyisocyanates, and
 isocyanate-reactive compounds. Miura, Ryuichi; Kodama, Shunichi
 (Asahi Glass Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08319454 A2
 19961203 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
 1995-128579 19950526.

AB Title compns. giving solvent- and weather-resistant cured films contain (a) reaction products prep'd. by linking OH- and F(.gtoreq.5%)-contg. fluoroolefin polymers with compds. having a conjugated double bond and groups reacting with isocyanates through **diisocyanates** and/or triisocyanates having NCO groups with different reactivity and (b) solvents. Thus, 100 parts Hy-Diene (fatty acids) was added dropwise into 80 parts LDI (2,6-**diisocyanate** caproic acid Me ester) at 60.degree. for 5 h with stirring under dried N and then treated with a soln. of 50:40:2:8 (mol) chlorotrifluoroethylene-cyclohexylvinyl ether-Et vinyl ether-hydroxybutyl vinyl ether copolymer (OH value 40) in 300 parts mineral turpentine at 60.degree. for 5 h with stirring to obtain a coating compn., in 100 parts of which TiO₂ pigment 30, light stabilizers 1.5, and Co naphthenate 0.05 part were dispersed, applied to an Al plate at a 0.02-mm thickness, and kept for 1 wk to give a cured film showing no bite on being rubbed 50 times with a xylene-soaked gauze and gloss retention .gtoreq.80% after 3000 h in the sunshine weatherometer test.

IT 4460-02-0DP, LDI, reaction products with linoleic acid and hydroxy-contg. fluoropolymers 186425-60-5DP, reaction products with polyisocyanates and isocyanate-reactive compds. (one-liq. air-curable coatings contg. hydroxy-substituted fluoroolefin polymers, polyisocyanates, and isocyanate-reactive compds.)

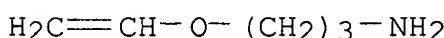
RN 4460-02-0 HCPLUS
 CN Hexanoic acid, 2,6-diisocyanato-, methyl ester (7CI, 8CI, 9CI) (CA INDEX NAME)



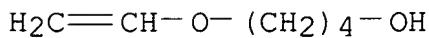
RN 186425-60-5 HCPLUS
 CN 1-Butanol, 4-(ethenyl)-, polymer with chlorotrifluoroethene, (ethenyl) cyclohexane and 3-(ethenyl)-1-propanamine (9CI) (CA INDEX NAME)

CM 1

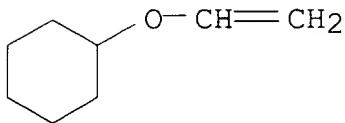
CRN 66415-55-2
 CMF C5 H11 N O



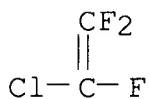
CM 2

CRN 17832-28-9
CMF C6 H12 O2

CM 3

CRN 2182-55-0
CMF C8 H14 O

CM 4

CRN 79-38-9
CMF C2 Cl F3

IC ICM C09D175-04
 ICS C09D175-04; C09D127-12; C08G018-73
 CC 42-10 (Coatings, Inks, and Related Products)
 IT 183906-32-3DP, 2,6-Diisocyanatecaproic acid
 2-isocyanateethyl ester, reaction products with unsatd. fatty acid
 and hydroxy-substituted fluoroolefin polymers
 (LTI (isocyanate); one-liq. air-curable coatings contg.
 hydroxy-substituted fluoroolefin polymers, polyisocyanates, and
 isocyanate-reactive compds.)
 IT 60-33-3DP, 9,12-Octadecadienoic acid (Z,Z)-, reaction products with
 LDI and hydroxy-contg. fluoropolymers 4460-02-0DP, LDI,
 reaction products with linoleic acid and hydroxy-contg.
 fluoropolymers 4460-02-0DP, LDI, reaction products with

unsatd. fatty acid and hydroxy-substituted fluoroolefin polymers 15396-00-6DP, KBM 9007, reaction products with hydroxy-substituted fluoroolefin polymers, polyisocyanates, and isocyanate-reactive compds. 88795-12-4DP, Chlorotrifluoroethylene-cyclohexyl vinyl ether-ethyl vinyl ether-hydroxybutyl vinyl ether copolymer, reaction products with polyisocyanates and isocyanate-reactive compds. 112462-23-4DP, reaction products with polyisocyanates and isocyanate-reactive compds. 161605-33-0DP, reaction products with polyisocyanates and isocyanate-reactive compds. 186425-60-5DP, reaction products with polyisocyanates and isocyanate-reactive compds.

(one-liq. air-curable coatings contg. hydroxy-substituted fluoroolefin polymers, polyisocyanates, and isocyanate-reactive compds.)

L52 ANSWER 14 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
 1990:487988 Document No. 113:87988 Fluorescent lamp. Takayanagi, Takashi; Kimura, Hiroshi; Miyazaki, Nobuyuki (Asahi Glass Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 02040853 A2 19900209 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-188281 19880729.

AB A shatter-proof fluorescent lamp comprises a coating film formed on the outside of the lamp tube, wherein the coating film is composed of a polyfunctional organosilicon compd. having an isocyanate group directly bonded to Si and a sol. fluorocopolymer contg. a moiety capable of curing, the F content based on the fluoroolefin units in the fluorocopolymer being .gtoreq.10 wt.%.

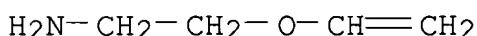
IT 117455-09-1
 (protective coating compn. contg., for shatter-proof fluorescent lamps)

RN 117455-09-1 HCPLUS

CN Silane, triisocyanatomethyl-, polymer with chlorotrifluoroethene, (ethenyloxy)cyclohexane, 2-(ethenyloxy)ethanamine and ethoxyethene (9CI) (CA INDEX NAME)

CM 1

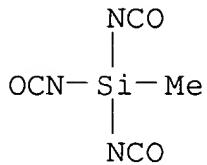
CRN 7336-29-0
 CMF C4 H9 N O



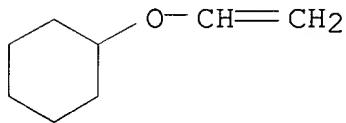
CM 2

CRN 5587-61-1

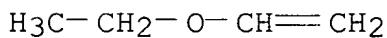
CMF C4 H3 N3 O3 Si



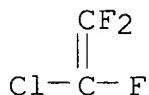
CM 3

CRN 2182-55-0
CMF C8 H14 O

CM 4

CRN 109-92-2
CMF C4 H8 O

CM 5

CRN 79-38-9
CMF C2 Cl F3IC ICM H01J061-35
ICS C09D175-04; H01J061-50
CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related

Properties)
 IT 117455-07-9 117455-08-0 **117455-09-1** 128725-06-4
 128725-07-5
 (protective coating compn. contg., for shatter-proof fluorescent lamps)

L52 ANSWER 15 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
 1988:612502 Document No. 109:212502 Fluoropolymer coating composition and coated product. Takayanagi, Takashi; Munekata, Seiji; Miyazaki, Nobuyuki; Moriwaki, Ken (Asahi Glass Co., Ltd., Japan). Eur. Pat. Appl. EP 271876 A2 19880622, 12 pp. DESIGNATED STATES: R: DE, FR, GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1987-118578 19871215. PRIORITY: JP 1986-301558 19861219.

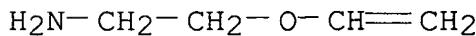
AB A one-part heat- and weather-resistant compn. for applications to steel or glass comprises a F-contg. polymer having curable reactive sites and an organosilicone compd. crosslinker having .gtoreq.1 NCO group bonded to a Si atom. A PhMe compn. contg. 100 parts 52.5:19.5:26.3:11.7 chlorotrifluoroethylene-cyclohexyl vinyl ether-Et vinyl ether-hydroxybutyl vinyl ether polymer (sp. viscosity 0.2 dL/g at 30.degree. in THF) and 15 parts methylsilyl triisocyanate (I) was applied to glass and dried at room temp. for 1 day to give a test piece having a 25-.mu.m coating and showing yellow index (180.degree., 8 h) 5, crosscut adhesion 100/100, and gloss retention (4000-h Sunshine weatherometer) 98%, vs. 60, 0/100, and 92, resp., using Coronate EH instead of I.

IT **117455-09-1 117557-32-1**
 (coatings, heat- and water-resistant, with good adhesion to glass or stainless steel)

RN 117455-09-1 HCPLUS

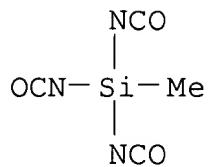
CN Silane, triisocyanatomethyl-, polymer with chlorotrifluoroethene, (ethenyloxy)cyclohexane, 2-(ethenyloxy)ethanamine and ethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 7336-29-0
CMF C4 H9 N O

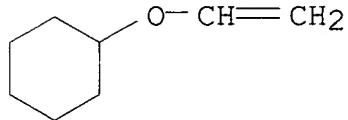
CM 2

CRN 5587-61-1
CMF C4 H3 N3 O3 Si



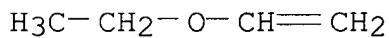
CM 3

CRN 2182-55-0
 CMF C8 H14 O



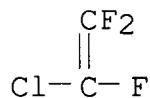
CM 4

CRN 109-92-2
 CMF C4 H8 O



CM 5

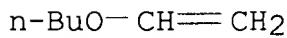
CRN 79-38-9
 CMF C2 Cl F3



RN 117557-32-1 HCAPLUS
 CN Butanol, (ethenyloxy)-, polymer with chlorotrifluoroethene,
 diisocyanatodimethylsilane, (ethenyloxy)cyclohexane and ethoxyethene
 (9CI) (CA INDEX NAME)

CM 1

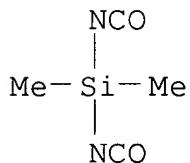
CRN 42978-84-7
CMF C6 H12 O2
CCI IDS



D1-OH

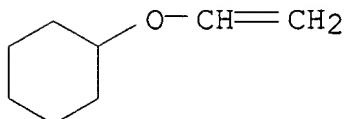
CM 2

CRN 5587-62-2
CMF C4 H6 N2 O2 Si



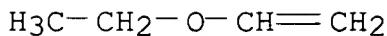
CM 3

CRN 2182-55-0
CMF C8 H14 O



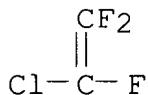
CM 4

CRN 109-92-2
CMF C4 H8 O



CM 5

CRN 79-38-9
CMF C2 Cl F3



IC ICM C09D003-78
ICS C08K005-54; C08L027-12
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 55, 57
IT 117455-07-9 117455-08-0 117455-09-1 117455-10-4
117455-11-5 117536-71-7 117557-32-1 117557-33-2
117557-34-3 117557-35-4 117558-15-3
(coatings, heat- and water-resistant, with good adhesion to glass
or stainless steel)

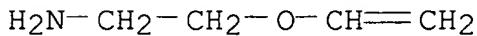
L52 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
1985:222276 Document No. 102:222276 Polyurethanes. (Sanyo Chemical
Industries Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60026022 A2
19850208 Showa, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
1983-133213 19830720.

AB Polyurethanes contg. vinyl groups and hydrolyzable silyl groups are
prepd. and hardened to form coatings. Thus, 0.2 mol isophorone
diisocyanate, 0.05 g dibutyltin dilaurate (I), and 60 mL
xylene were heated to 80-90.degree., mixed with 0.13 mol
polypropylene glycol during 1 h, heated 9 h at 80-90.degree., mixed
with 0.02 mol 2-hydroxyethyl methacrylate and 0.12 mol
.gamma.-aminopropyltrimethoxysilane, heated 4 h at the same temp.,
evacuated in vacuo to remove the solvent, mixed (100 parts resin)
with 2 parts I, and coated on Al to prep. a coating having tack-free
time 20 min, hardening time 48 h, Shore C hardness 82, and tensile
strength 3.2 kg/cm², compared with 70, 48, 75, and 1.3, resp., for a
coating prepd. from Bu methacrylate-.gamma.-
methacryloyloxypropyltrimethoxysilane copolymer.
IT 7336-29-0D, reaction products with hexamethylene
diisocyanate-polycaprolactone copolymer and
mercaptopropyltrimethoxysilane 39323-37-0D, reaction
products with aminopropyltrimethoxysilane and hydroxyethyl
methacrylate 42458-50-4D, reaction products with

aminoethyl vinyl ether and mercaptopropyltrimethoxysilane
(coatings)

RN 7336-29-0 HCPLUS

CN Ethanamine, 2-(ethenyloxy)- (9CI) (CA INDEX NAME)



RN 39323-37-0 HCPLUS

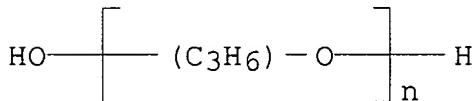
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-,
polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-
trimethylcyclohexane (9CI) (CA INDEX NAME)

CM 1

CRN 25322-69-4

CMF (C₃ H₆ O)_n H₂ O

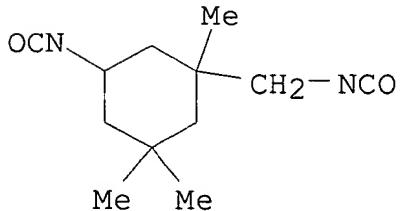
CCI IDS, PMS



CM 2

CRN 4098-71-9

CMF C₁₂ H₁₈ N₂ O₂



RN 42458-50-4 HCPLUS

CN 2-Oxepanone, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

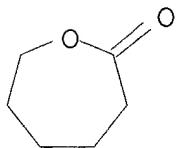
CM 1

CRN 822-06-0
 CMF C8 H12 N2 O2

OCN- (CH₂)₆- NCO

CM 2

CRN 502-44-3
 CMF C6 H10 O2



IC ICM C08G018-67
 CC 42-10 (Coatings, Inks, and Related Products)
 IT 868-77-9D, reaction products with aminopropyltrimethoxysilane and isophorone **diisocyanate**-polypropylene glycol copolymer
 4420-74-0D, reaction products with aminoethyl vinyl ether and hexamethylene **diisocyanate**-polycaprolactone copolymer
 7336-29-0D, reaction products with hexamethylene **diisocyanate**-polycaprolactone copolymer and mercaptopropyltrimethoxysilane 13822-56-5D, reaction products with hydroxyethyl methacrylate and isophorone **diisocyanate**-polypropylene glycol copolymer 39323-37-0D, reaction products with aminopropyltrimethoxysilane and hydroxyethyl methacrylate 42458-50-4D, reaction products with aminoethyl vinyl ether and mercaptopropyltrimethoxysilane (coatings)

L52 ANSWER 17 OF 18 HCPLUS COPYRIGHT 2004 ACS on STN
 1969:451337 Document No. 71:51337 Stable dispersions of synthetic polymers in organic liquids. Milne, David G. (Du Pont de Nemours, E. I., and Co.). Ger. Offen. DE 1803384 19690703, 23 pp. (German).
 CODEN: GWXXBX. APPLICATION: DE 1968-1803384 19681016.
 AB Stable vinyl or halogen-contg. polymer dispersions are prep'd. by the addn. of sol. acrylate polymers. Thus, 0.51 part of 95:5 (wt.) Me methacrylate-3'-(.beta.- (methacryloyloxy)ethyl]spiro[cyclohexane-1,2'-oxazolidine]copolymer, prep'd. with azobisisobutyronitrile, was mixed with 9.9 parts of an 85:15 (molar) tetrafluoroethylene-hexafluoropropylene copolymer and 30.51 parts iso-BuCOMe. The

dispersion was added to a soln. of 9.88 parts of a poly(amide-imide) resin in 47.6 parts N-methylpyrrolidinone, and subsequently 2 parts TiO₂ was added to give a sprayable coating for Al foil. Other comonomers similarly used were methacrylic acid, 2-ethylhexyl acrylate, aminoethyl vinyl ether, hydroxyethyl methacrylate, bis(disocyanatoethyl) fumarate, and acrylonitrile.

IT 26780-25-6

(coatings of methacrylic acid-methyl methacrylate polymer and, on aluminum)

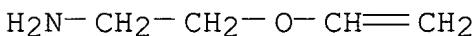
RN 26780-25-6 HCAPLUS

CN Acrylic acid, 2-ethylhexyl ester, polymer with 2-(vinyloxy)ethylamine (8CI) (CA INDEX NAME)

CM 1

CRN 7336-29-0

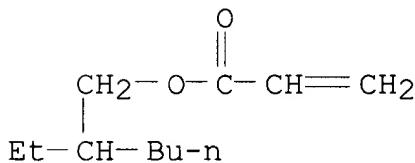
CMF C4 H9 N O



CM 2

CRN 103-11-7

CMF C11 H20 O2



IC C08F; B01F

CC 42 (Coatings, Inks, and Related Products)

IT 26780-25-6

(coatings of methacrylic acid-methyl methacrylate polymer and, on aluminum)

L52 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

1959:34394 Document No. 53:34394 Original Reference No. 53:6086b-e

Aminoalkyl vinyl ethers. Watanabe, Warren H.; Melamed, Sidney (Rohm & Haas Co.). US 2845407 19580729 (Unavailable). APPLICATION: US .

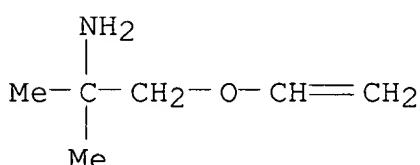
AB Vinyl ethers contg. amino groups attached to tertiary C atoms are not subject to cyclization and are obtained by vinylation of the

amino alc. Thus, CH.tplbond.CH was added to 44 g. Na in 1800 g. HOCH₂CMe₂NH₂ at 100-130.degree. and 3-500 lb./sq. in. gage. After 1 hr. and 16 min. distn. gave 84% CH₂:CHOCH₂CMe₂NH₂ (I), b120 70.degree., n_{20D} 1.4293. Similarly prep'd. were: CH₂:CHOCH₂CH₂CHMe(CH₂)₃CMe₂NH₂, b10 113.degree., n_{20D} 1.4495; CH₂:CHOCH₂CMeBuNH₂; CH₂:CHOCH₂CMe₂NHCH₂CHMe₂; CH₂:CHOCH₂CMe₂NHCH₂C₁₇H₃₅; CH₂:CHOCH₂CMe₂NHCH₂CHEt(CH₂)₃Me (II), CH₂:CHOCH₂CH₂NHCMe₃ (III), b43 76.degree., n_{20D} 1.4308; CH₂:CHOCH₂CH₂NHCMe₂CH₂CMe₃ (IV), b20 109.degree., n_{20D} 1.4478. Compds. are useful as fungicides, insecticides, and gas-fade inhibitors for acetate fibers. Polymerization of 20 g. I and 3 g. (NCCMe₂)₂N₂ (V) at 75.degree. for 16 hrs. gave a toxic oil which improves dye receptivity of polyacrylonitrile, and which reacted with **diisocyanates** (VI) to give a resin useful for ion exchange. The polymer of II is a corrosion inhibitor for lubricants, and reacts with EtNCO to yield poly(N-ethylurea). A copolymer of 23 g. I and 80 g. CH₂:CMeCO₂Me was partially sol. in MeOH and gelled with VI. Heating CH₂:CHOC₂H₄NH₂ with NH₂CONH₂ at 120-60.degree. gave (CH₂:CHOC₂H₄NH₂)₂CO which copolymerized with I to give a solid, useful as a nion-exchange resin. EtNCO and III gave CH₂:CHOC₂H₄N(Bu-tert)CONH₂. IV and BuNCO gave the urea. III and IV did not react with esters.

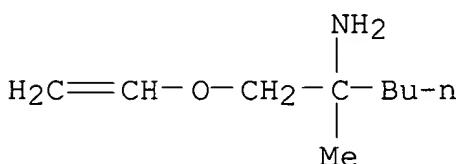
IT 86241-96-5, Ethylamine, 1,1-dimethyl-2-vinyloxy-
98956-71-9, Pentylamine, 1-methyl-1-(vinyloxymethyl)-
(prepn. of)

RN 86241-96-5 HCPLUS

CN 2-Propanamine, 1-(ethenyloxy)-2-methyl- (9CI) (CA INDEX NAME)



RN 98956-71-9 HCPLUS
CN Pentylamine, 1-methyl-1-(vinyloxymethyl)- (6CI) (CA INDEX NAME)

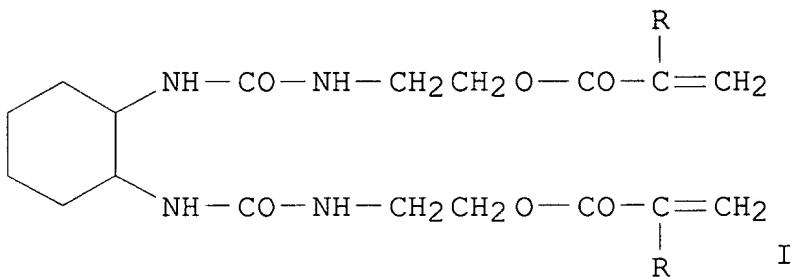


IT 85997-10-0, Diethylamine, 1,1-dimethyl-2'-vinyloxy- 86047-45-2,
 Urea, 1,3-bis(2-vinyloxyethyl)- 86218-62-4, Heptylamine,
 1,1,5-trimethyl-7-vinyloxy- 86241-96-5, Ethylamine,
 1,1-dimethyl-2-vinyloxy- 86375-55-5, Butylamine,
 1,1,3,3-tetramethyl-N-(2-vinyloxyethyl)- 98956-71-9,
 Pentylamine, 1-methyl-1-(vinyloxymethyl)- 99994-00-0, Urea,
 1-tert-butyl-3-ethyl-1-(2-vinyloxyethyl)- 100887-37-4, Hexylamine,
 N-(1,1-dimethyl-2-vinyloxyethyl)-2-ethyl- 103212-79-9,
 Octadecylamine, N-(1,1-dimethyl-2-vinyloxyethyl)- 103645-67-6,
 Propylamine, N-(1,1-dimethyl-2-vinyloxyethyl)-2-methyl-
 (prepn. of)

=> d 153 1-20 cbib abs hitstr hitind

L53 ANSWER 1 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN
 2003:353887 Document No. 138:356256 Gel electrolyte, its manufacture,
 and its use. Uetani, Yoshihiro; Kii, Keisuke; Satsuma, Michio
 (Nitto Denko Corp., Japan). Jpn. Kokai Tokyo Koho JP 2003132952 A2
 20030509, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
 2001-329063 20011026.

GI



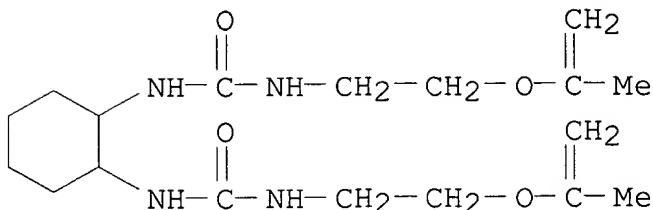
AB The electrolyte contains an electrolyte salt, a solvent for the salt, and a polymer matrix I (R = H or Me group); where the matrix comprises a crosslinked polymer obtained by polymg. a bifunctional (meth)acrylate. The electrolyte is manufd. by polymg. the (meth)acrylate with heating or irradiating by active radiation to from the crosslinked polymer, and forming a gel by retaining the salt and the solvent in the matrix. The electrolyte is used for batteries and capacitors, esp. secondary Li batteries.

IT 519057-01-3
 (manuf. of gel electrolytes contg. polymethacrylate compds. for secondary lithium batteries and double layer capacitors)

RN 519057-01-3 HCPLUS

CN Urea, N,N''-1,2-cyclohexanediylbis[N'-(2-[(1-

methylethenyl)oxy]ethyl]- (9CI) (CA INDEX NAME)



IC ICM H01M010-40

ICS C08F020-36; H01B001-06; H01B013-00; H01G009-02; H01G009-032

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

IT 96-49-1, Ethylene carbonate 623-53-0, Ethyl methyl carbonate

21324-40-3, Lithium hexafluorophosphate 519057-01-3

(manuf. of gel electrolytes contg. polymethacrylate compds. for secondary lithium batteries and double layer capacitors)

L53 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:12716 Document No. 132:79494 Package encapsulants prepared from allylated amide compounds. Schultz, Rose Ann; Herr, Donald; Xiao, Chaodong (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969066 A2 20000105, 51 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112741 19990701. PRIORITY: US 1998-91508 19980702; US 1999-336323 19990618.

AB A package encapsulant comprises an allylated amide compd.; a curing initiator selected from the group consisting of a free-radical initiator, a photoinitiator, and a combination of those; optionally, one or more fillers; optionally, one or more **adhesion** promoters.

IT 39340-26-6DP, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs.

(package encapsulants prep'd. from allylated amide compds.)

RN 39340-26-6 HCAPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 39340-26-6, DDI 1410

(package encapsulants prep'd. from allylated amide compds.)

RN 39340-26-6 HCAPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00

CC ICS C08F290-06; C08F299-02; H05K003-38
 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 76

IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with amino-terminated acrylonitrile-butadiene copolymer
 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and propargyl alc. 124-02-7DP, Diallylamine, reaction products with maleated butadiene rubber **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs. 76620-00-3P
 102114-99-8P 126968-43-2DP, Versamine 552, p-nitrobenzamide derivs., reduced, maleimide derivs. 158516-85-9DP, Pripol 2033, divinyl derivs. 203193-13-9P 253661-94-8P 253661-95-9P
 253661-97-1P 253661-98-2P 253662-01-0P 253662-10-1P
 253662-31-6P 253662-32-7P 253662-33-8P 253681-46-8P
 253681-47-9P
 (package encapsulants prep'd. from allylated amide compds.)

IT 56-81-5, 1,2,3-Propanetriol, reactions 108-31-6, 2,5-Furandione, reactions 111-34-2, Butyl **vinyl ether**
 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3, p-Nitrobenzoyl chloride 124-02-7, Diallylamine 589-16-2, 4-Ethyl aniline 619-25-0 620-92-8, Bisphenol F 814-68-6, Acryloyl chloride 1585-90-6 2451-62-9, Tris(epoxypropyl)isocyanurate 4098-71-9, Isophorone diisocyanate 7300-91-6 **39340-26-6**, DDI 1410 85721-25-1 158516-85-9, Pripol 2033
 (package encapsulants prep'd. from allylated amide compds.)

L53 ANSWER 3 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN
 2000:12713 Document No. 132:79491 Package encapsulant compositions for use in electronic devices. Ma, Bodan; Tong, Quinn K. (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969063 A2 20000105, 45 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112725 19990701. PRIORITY: US 1998-91493 19980702; US 1999-336246 19990618.

AB A curable package encapsulant compn. comprises a maleimide compd. and a curing initiator selected from the group consisting of a free-radical initiator, a photoinitiator, and a combination of those.

IT **39340-26-6DP**, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs.

(package encapsulant compns. for use in electronic devices)

RN 39340-26-6 HCPLUS

CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **39340-26-6**, DDI 1410

(package encapsulant compns. for use in electronic devices)

RN 39340-26-6 HCPLUS
 CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00
 ICS C08F290-06; C08F299-02; H05K003-38
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 76

IT **Adhesives**

Encapsulants
 Encapsulation
 Semiconductor devices

(package encapsulant compns. for use in electronic devices)

IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with amino-terminated acrylonitrile-styrene copolymer 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and propargyl alc. 39340-26-6DP, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs. 55750-53-3P, 6-Maleimidocaproic acid 76620-00-3P 126968-43-2DP, Versamine 552, p-nitrobenzamide derivs., reduced, maleimide derivs. 158516-85-9DP, Pripol 2033, divinyl ether derivs. 203193-13-9P
 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P
 253662-01-0P 253662-33-8P 253681-46-8P 253681-47-9P

(package encapsulant compns. for use in electronic devices)

IT 60-32-2, 6-Aminocaproic acid 108-31-6, 2,5-Furandione, reactions 111-34-2, Butyl vinyl ether 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3, p-Nitrobenzoyl chloride 589-16-2, 4-Ethyl aniline 619-25-0 814-68-6, Acryloyl chloride 1585-90-6 2451-62-9, Tris(epoxypropyl)isocyanurate 4098-71-9, 5-Isocyanato-1-(isocyanatomethyl)-1, 3, 3-trimethylcyclohexane 39340-26-6, DDI 1410 126968-43-2, Versamine 552 158516-85-9, Pripol 2033

(package encapsulant compns. for use in electronic devices)

L53 ANSWER 4 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN

2000:12712 Document No. 132:79440 Method of making electronic components using reworkable **adhesives**. Tong, Quinn K.; Ma, Bodan; Xiao, Chaodong; Shenfield, David (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969062 A2 20000105, 44 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112724 19990701. PRIORITY: US 1998-91506 19980702; US 1999-335809 19990618.

AB A method for making an electronic component **adhered** to a substrate with a cured reworkable **adhesive** compn.

comprises: (a) providing a curable reworkable **adhesive** compn. comprising (i) one or more mono-functional vinyl compds. in a major amt. effective to provide thermoplastic properties, and (ii) optionally, one or more polyfunctional vinyl compds. in a minor amt. ineffective to diminish the thermoplastic properties of the cured compn., (iii) a curing initiator selected from the group consisting of a radical initiator, a photoinitiator, and a combination of those, (iv) optionally, one or more fillers; (v) optionally, one or more **adhesion** promoters; (b) applying the curable reworkable **adhesive** compn. to either the electronic component or the substrate (c) contacting the electronic component and the substrate together; and (d) curing the compn. *in situ*.

IT 39340-26-6DP, DDI 1410, m-nitro benzylalcoholderivs, reduced, maleimide derivs.
(method of making electronic components using reworkable **adhesives**)

RN 39340-26-6 HCPLUS
CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 39340-26-6, DDI 1410
(method of making electronic components using reworkable **adhesives**)

RN 39340-26-6 HCPLUS
CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00
ICS C08F290-06; C08F299-02; H05K003-38
CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 76

ST reworkable curable **adhesive** polyfunctional vinyl compd;
electronic device fabrication **adhesive**

IT Fatty acids, preparation
(C18-unsatd., dimers and trimers, Empol 1024, reaction products with propargyl alc. and lauryl mercaptan; method of making electronic components using reworkable **adhesives**)

IT Nitrile rubber, preparation
(amine-terminated, Hycar ATBN 1300X42, maleimide derivs.; method of making electronic components using reworkable **adhesives**)

IT Polyimides, preparation
(bismaleimide-based; method of making electronic components using reworkable **adhesives**)

IT **Adhesives**
Semiconductor devices
(method of making electronic components using reworkable **adhesives**)

IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with amine-terminated acrylonitrile-butadiene copolymer 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and propargyl alc. 39340-26-6DP, DDI 1410, m-nitro benzylalcoholderivs, reduced, maleimide derivs. 55750-53-3P, 6-Maleimidocaproic acid 76620-00-3P 126968-43-2DP, Versamine 552, p-nitro benzamide derivs., reduced, maleimide derivs. 158516-85-9DP, Pripol 2033, **divinyl ether** derivs. 203193-13-9P 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P 253662-01-0P 253662-33-8P 253681-46-8P 253681-47-9P (method of making electronic components using reworkable **adhesives**)

IT 253661-99-3P 253662-00-9P (method of making electronic components using reworkable **adhesives**)

IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2, 6-Aminocaproic acid 108-31-6, 2,5-Furandione, reactions 111-34-2, Butyl **vinyl ether** 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3, p-Nitrobenzoyl chloride 589-16-2, 4-Ethyl aniline 619-25-0 814-68-6, Acryloyl chloride 1585-90-6 2451-62-9, Tris(epoxypropyl)isocyanurate 4098-71-9, Isophorone diisocyanate 7300-91-6 39340-26-6, DDI 1410 126968-43-2, Versamine 552 158516-85-9, Pripol 2033 (method of making electronic components using reworkable **adhesives**)

IT 9003-18-3P (nitrile rubber, amine-terminated, Hycar ATBN 1300X42, maleimide derivs.; method of making electronic components using reworkable **adhesives**)

L53 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
 2000:12711 Document No. 132:79490 Underfill encapsulants prepared from allylated amide compounds. Schultz, Rose Ann; Herr, Donald; Xiao, Chaodong (National Starch and Chemical Investment Holding Corporation, USA). Eur. Pat. Appl. EP 969061 A2 20000105, 52 pp.
 DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-112723 19990701. PRIORITY: US 1998-91507 19980702; US 1999-336633 19990618.

AB An underfill encapsulant comprises an allylated amide compd.; a curing initiator selected from the group consisting of a free-radical initiator, a photoinitiator, and a combination of those; optionally, one or more fillers; optionally, one or more **adhesion promoters**.

IT 39340-26-6DP, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs.

(underfill encapsulants prep'd. from allylated amide compds.)

RN 39340-26-6 HCPLUS
 CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 39340-26-6, DDI 1410
 (underfill encapsulants prep'd. from allylated amide compds.)

RN 39340-26-6 HCPLUS
 CN DDI (isocyanate) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09J004-00
 ICS C08F290-06; C08F299-02; H05K003-38

CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 76

IT **Adhesives**

Encapsulants

(underfill encapsulants prep'd. from allylated amide compds.)

IT 107-19-7DP, Propargyl alcohol, reaction products with dimer acid and lauryl mercaptan 108-31-6DP, Maleic anhydride, reaction products with amine-terminated acrylonitrile-butadiene copolymer
 112-55-0DP, Lauryl mercaptan, reaction products with dimer acid and propargyl alc. 124-02-7DP, Diallylamine, reaction products with Ricon 131MA5 39340-26-6DP, DDI 1410, m-nitrobenzyl alc. derivs., reduced, maleimide derivs. 76620-00-3P 102114-99-8P
 126968-43-2DP, Versamine 552, p-nitro benzamide derivs. reduced, maleimide derivs. 158516-85-9DP, Pripol 2033, divinyl ether derivs. 203193-13-9P
 253661-94-8P 253661-95-9P 253661-97-1P 253661-98-2P
 253662-01-0P 253662-10-1P 253662-31-6P 253662-33-8P
 253681-46-8P 253681-47-9P

(underfill encapsulants prep'd. from allylated amide compds.)

IT 56-81-5, 1,2,3-Propanetriol, reactions 60-32-2 79-37-8, Oxalyl chloride 107-11-9, Allyl amine 108-31-6, 2,5-Furandione, reactions 111-34-2, Butyl vinyl ether
 112-47-0, 1,10-Decanediol 112-67-4, Palmitoyl chloride 122-04-3, p-Nitrobenzoyl chloride 124-02-7, Diallylamine 589-16-2, 4-Ethyl aniline 620-92-8, Bisphenol F 814-68-6, Acryloyl chloride 1585-90-6 2451-62-9, Tris(epoxypropyl)isocyanurate 4098-71-9, Isophorone diisocyanate 7300-91-6 39340-26-6, DDI 1410
 85721-25-1 126968-43-2, Versamine 552 158516-85-9, Pripol 2033
 (underfill encapsulants prep'd. from allylated amide compds.)

L53 ANSWER 6 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN

1998:758674 Document No. 130:67223 Stabilizers for cationic crosslinking catalysts and their application. Takahashi, Eiji (Nippon Soda Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10310633 A2 19981124 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION:

JP 1997-123963 19970514.

AB The stabilizers comprise (1) compds. having urethane bond, amide bond, urea bond, or carbodiimide group and/or dialkylaminopyridine compds. and/or (2) protonic acid compds. Cation-crosslinkable compns. contain the stabilizers and catalysts of R1S+(R2)(R3)X- [I: R1 = aryl; R2 = C1-8 alkyl; R3 = (un)substituted alkyl whose C in .alpha.-position from S side is a secondary C, cycloalkyl, alkenyl; X = nonnucleophilic anion residue]. The compns. contg. the stabilizers have improved storage stability at room temp. to 50.degree.. Thus, a compn. contg. UVR 6110 (alicyclic epoxy resin), I (R1 = 2-naphthyl, R2 = Me, R3 = C(Me)HCO2Et, X = PF6), and dicyclohexylcarbodiimide was stored at 50.degree. for 7 days to show viscosity increase 3.14 times that of initial compn.

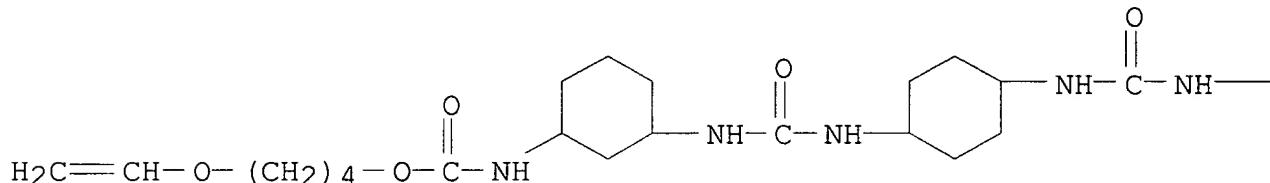
IT 217644-60-5 217644-64-9

(stabilizers for cationic crosslinking catalysts and their application)

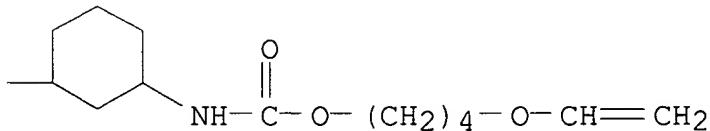
RN 217644-60-5 HCPLUS

CN Carbamic acid, [1,4-cyclohexanediylbis(iminocarbonylimino-3,1-cyclohexanediyil)]bis-, bis[4-(ethenyloxy)butyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



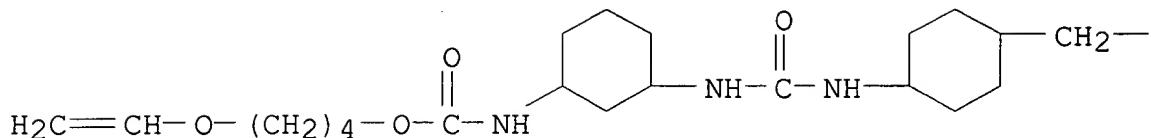
PAGE 1-B



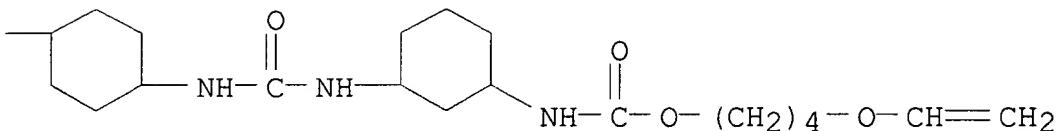
RN 217644-64-9 HCPLUS

CN Carbamic acid, [methylenebis(4,1-cyclohexanediyliminocarbonylimino-3,1-cyclohexanediyil)]bis-, bis[4-(ethenyloxy)butyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C08G059-68
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 67
 IT 104-15-4, uses 538-75-0, Dicyclohexylcarbodiimide 2387-23-7
 7664-93-9, Sulfuric acid, uses 217644-58-1 **217644-60-5**
 217644-62-7 **217644-64-9**
 (stabilizers for cationic crosslinking catalysts and their
 application)

L53 ANSWER 7 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN
 1997:356153 Document No. 127:26178 Heat mode writing lithographic
 plates. Tsuchiya, Mitsumasa; Horie, Seiji (Fuji Photo Film Co.,
 Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09080745 A2 19970328
 Heisei, 39 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
 1995-231675 19950908.

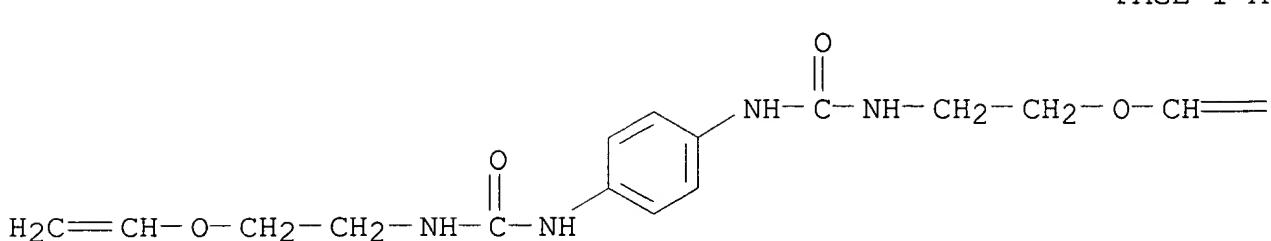
AB The lithog. plates comprise supports, successively laminated with
 (A) photosensitive layers contg. compds. with ≥ 2 enol ether
 groups $\text{R}_1\text{R}_2\text{C}(\text{O})\text{CR}_3\text{O}$ ($\text{R}_1\text{R}_3 = \text{H}$, alkyl, aryl which may be bonded to
 form satd. or olefinic unsatd. rings), linear polymers, UV absorbing
 agents, and acid precursors and (B) silicone rubber layers. The
 lithog. plates can be used as pos. and neg. type.

IT **189515-81-9P**
 (heat mode writing lithog. plates with photosensitive layers
 contg. enol ethers)

RN 189515-81-9 HCPLUS

CN Urea, N,N'-1,4-phenylenebis[N'-(2-(ethoxyethoxy)ethyl)-, homopolymer
 (9CI) (CA INDEX NAME)

CRN 150610-14-3
 CMF C16 H22 N4 O4



PAGE 1-B

=CH₂

IC ICM G03F007-00
 ICS B41C001-055; G03F007-004; G03F007-029; G03F007-033
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 IT 86303-85-7P **189515-81-9P**
 (heat mode writing lithog. plates with photosensitive layers
 contg. enol ethers)

L53 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
 1997:154674 Document No. 126:164302 Manufacture of waterless
 presensitized lithographic plate showing high sensitivity. Tsucha,
 Mitsumasa; Sato, Hironori; Kondo, Shunichi (Fuji Photo Film Co Ltd,
 Japan). Jpn. Kokai Tokkyo Koho JP 08328240 A2 19961213 Heisei, 43
 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-132034
 19950530.

AB The plate includes a photosensitive layer and a silicone rubber
 layer successively laminated on a support, where the photosensitive
 layer is prep'd. by applying a coating soln. contg. (A) a compd.
 having ≥ 2 enol (thio)ethers of $\text{R}_1(\text{R}_2)\text{C}:\text{C}(\text{R}_3)\text{O}$ or
 $\text{R}_1(\text{R}_2)\text{C}:\text{C}(\text{R}_3)\text{S}$ ($\text{R}_{1-3} = \text{H}$, alkyl, aryl), (B) a linear macromol.
 compd. having an acid group and OH or SH, and (C) a photoacid
 generator decompg. with active-beam irradn. or radiation, and
 heating at 60-150.degree. for 30 s-10 min.

IT **186819-17-0P**
 (photosensitive layer; manuf. of waterless presensitized lithog.
 plate contg. enol ether-crosslinked photoresist layer)

RN 186819-17-0 HCPLUS

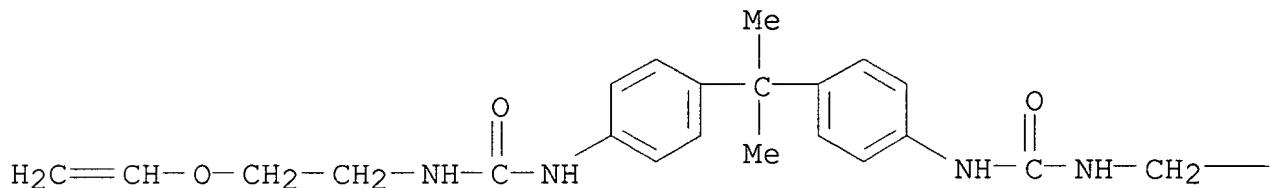
CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate, N,N''-[(1-methylethylidene)di-4,1-
phenylene]bis[N'-[2-(ethenyloxy)ethyl]urea] and phenylmethyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 160143-35-1

CMF C25 H32 N4 O4

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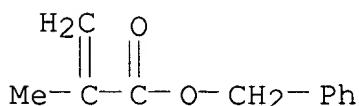
PAGE 1-B

— CH₂ — O — CH = CH₂

CM 2

CRN 2495-37-6

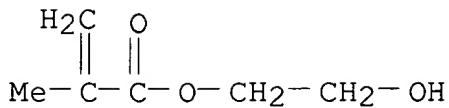
CMF C11 H12 O2



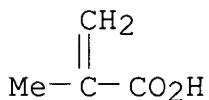
CM 3

CRN 868-77-9

CMF C6 H10 O3



CM 4

CRN 79-41-4
CMF C4 H6 O2IC ICM G03F007-00
ICS G03F007-039CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 38IT 52411-04-8DP, polymers with polyvinyl butyral, vinyl alc., and
vinyl phthalate 160508-63-4P 160508-65-6P 160508-67-8P
160508-71-4P 186819-13-6P 186819-14-7P 186819-15-8P
186819-16-9P 186819-17-0P 186819-18-1P 186819-20-5P
(photosensitive layer; manuf. of waterless presensitized lithog.
plate contg. enol ether-crosslinked photoresist layer)

L53 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN

1996:745494 Document No. 126:13097 Negative imaging lithographic plate
for offset printing master. Kondo, Shunichi (Fuji Photo Film Co
Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08234426 A2 19960913 Heisei,
21 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-35493
19950223.AB The lithog. plate contains a radiation-absorbing agent, a compd.
having .gtoreq.2 enol ether group R1C(R2):C(R3)O- (R1-3 = H, alkyl,
aryl; 2 of R may form satd. or unsatd. ring.) , and a linear polymer
thermally reacting to the enol ether group. The lithog. plate is
suitable for direct imaging by near IR and IR beam.IT 184093-05-8P
(neg. imaging lithog. plate obtained from ethylenic polymers for
offset printing master)

RN 184093-05-8 HCAPLUS

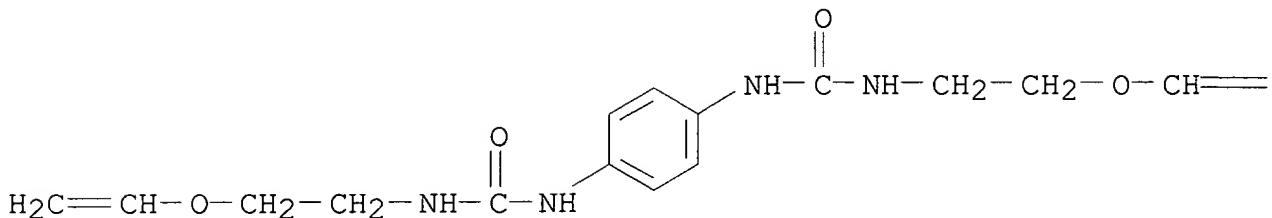
CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate, N,N''-1,4-phenylenebis[N'-(2-

(ethenyloxy)ethyl]urea] and phenylmethyl 2-methyl-2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 150610-14-3
CMF C16 H22 N4 04

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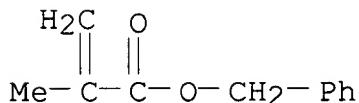


PAGE 1-B

$$= \text{CH}_2$$

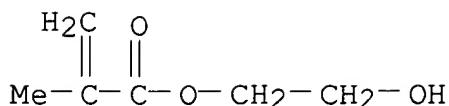
CM 2

CRN 2495-37-6
CMF C11 H12 02

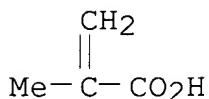


CM 3

CRN 868-77-9
CMF C6 H10 03



CM 4

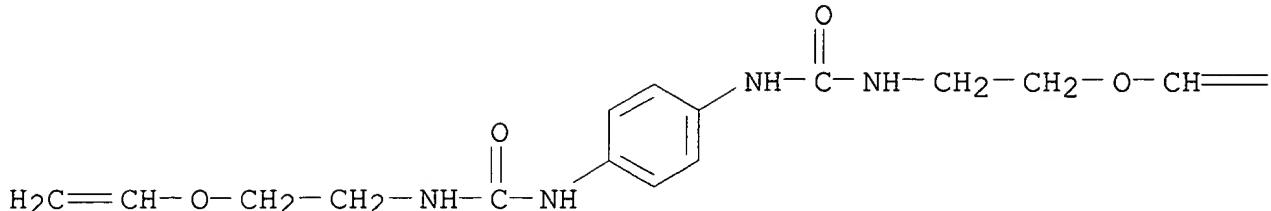
CRN 79-41-4
CMF C4 H6 O2

IC ICM G03F007-028
 ICS B41M005-26; B41N001-08; G03F007-00; G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 38
 IT 44912-22-3DP, polymers with polyvinyl butyrals and bisphenol A
 bis(vinylethoxy ether), esters 52411-04-8DP, polymers with
 polyvinyl butyrals 160508-67-8P 184093-03-6P 184093-04-7P
184093-05-8P
 (neg. imaging lithog. plate obtained from ethylenic polymers for
 offset printing master)

L53 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
 1996:712385 Document No. 125:342992 Imaging recording material for
 direct printing plate. Kondo, Shunichi (Fuji Photo Film Co Ltd,
 Japan). Jpn. Kokai Tokkyo Koho JP 08220752 A2 19960830 Heisei, 30
 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-29774
 19950217.

AB The material comprises a radiation-absorbing substance, an acid
 precursor, a compd. having .gtoreq.2 enol ether group
 R1C(R2):C(R3)O- (R1, R2, R3 = H, alkyl, aryl; .gtoreq.2 Rs may form
 satd. or unsatd. olefinic ring.), and an alkali-sol. resin. The
 material is useful for offset printing master. The material is
 suitable for near IR or IR recording without wavelength dependency.
 IT **150610-14-3**
 (photoimaging recording material for direct printing plate)
 RN 150610-14-3 HCAPLUS
 CN Urea, N,N'-1,4-phenylenebis[N'-(2-(ethenyloxy)ethyl)- (9CI) (CA
 INDEX NAME)

PAGE 1-A



PAGE 1-B

=CH₂

IC ICM G03F007-027
 ICS B41C001-05; G03F007-004; G03F007-028
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 37
 IT 3712-60-5 52411-04-8 72015-22-6 146793-37-5
150610-14-3 150610-23-4 183586-85-8 183586-89-2
 (photoimaging recording material for direct printing plate)

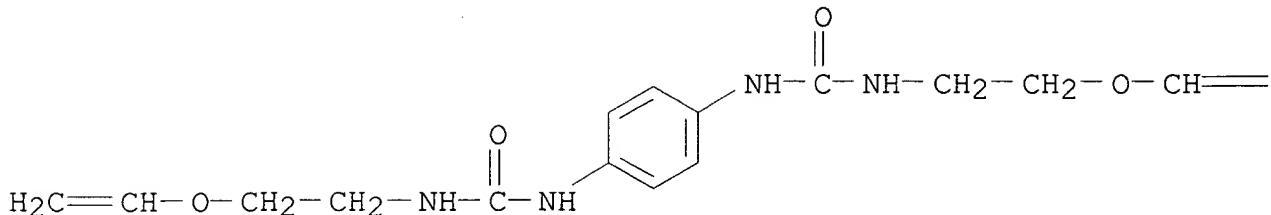
L53 ANSWER 11 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN
 1996:363372 Document No. 125:22347 Lithographic plate with improved
 printability. Horie, Seiji; Kondo, Shunichi (Fuji Photo Film Co
 Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08082959 A2 19960326 Heisei,
 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-217694
 19940912.

AB In the title plate comprising a photosensitive layer(s) comprised of
 a photoconductive compd. and/or a pos.-working photoresist compn. on
 a conductive support with a hydrophilic surface, the pos.-working
 photoresist compn. contains (1) a compd. contg. .gtoreq.2 enol ether
 groups, R₂R₁C:CR₃-O- (R₁-3 = H, alkyl, aryl), (2) a linear polymer
 contg. acid group or OH group, and (3) a photoacid generator, where
 (2) and (3) are crosslinked by a heat during or after the
 photosensitive layer formation.

IT **150610-14-3 160143-36-2**
 (vinyl ether compd. of pos.-working photoresist)

RN 150610-14-3 HCPLUS
 CN Urea, N,N''-1,4-phenylenebis[N'-(2-(ethenyloxy)ethyl]- (9CI) (CA
 INDEX NAME)

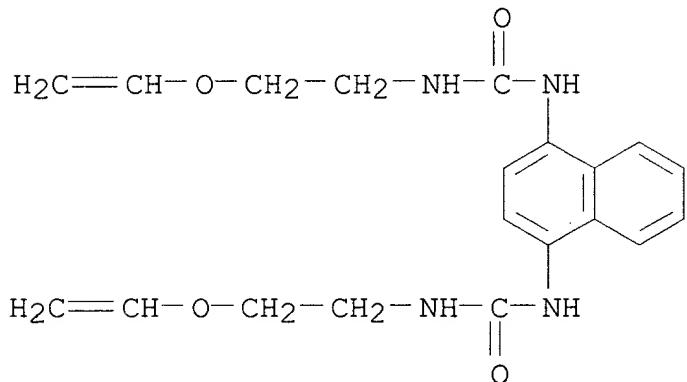
PAGE 1-A



PAGE 1-B

=CH₂

RN 160143-36-2 HCPLUS

CN Urea, N,N'-1,4-naphthalenediylbis[N'-(2-(ethenyloxy)ethyl]- (9CI)
(CA INDEX NAME)

IC ICM G03G013-28

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)IT 52411-04-8 84040-76-6 142248-13-3 **150610-14-3**150610-26-7 **160143-36-2**

(vinyl ether compd. of pos.-working photoresist)

L53 ANSWER 12 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN

1995:315625 Document No. 122:326513 Positive-working light-sensitive
composition.. Kondo, Syunichi; Umehara, Akira; Aotani, Yoshimasa;

Yamaoka, Tsuguo (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 609684 A1 19940810, 65 pp. DESIGNATED STATES: R: DE, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1994-100530 19940114. PRIORITY: JP 1993-18793 19930205.

AB A pos.-working light-sensitive compn. comprising (a) a compd. having .gtoreq.2 enol ether groups, represented by the following general formula (R2)(R1)C:C(R3)-O- wherein R1, R2 and R3 may be the same or different and each represents a H atom, an alkyl group or an aryl group, provided that each 2 of R1, R2 and R3 may be linked together to form a satd. or olefinically unsatd. ring. (b) a linear polymer having acidic groups; and (c) a compd. capable of generating an acid through irradn. with actinic light rays or radiant rays, the component (a) and the component (b) being thermally crosslinked. The pos.-working light-sensitive compn. has high light-sensitivity and permits the use of light rays extending over a wide range of wavelengths. Therefore, the pos.-working light-sensitive compn. can provide clear pos. images and has a wide development latitude.

IT 160508-79-2 160508-80-5 160508-81-6

(crosslinked; pos.-working photoimaging compn.)

RN 160508-79-2 HCAPLUS

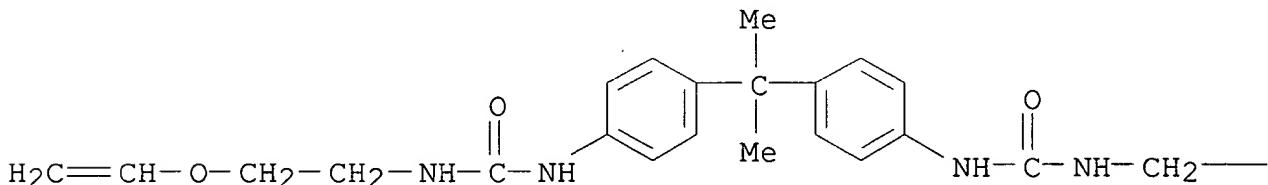
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate, N,N''-[(1-methylethylidene)di-4,1-phenylene]bis[N'-(2-(ethoxy)ethyl)urea] and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 160143-35-1

CMF C25 H32 N4 O4

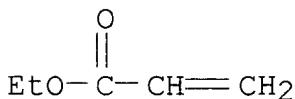
PAGE 1-A



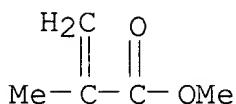
PAGE 1-B

--CH₂-O-CH=CH₂

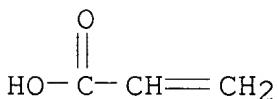
CM 2

CRN 140-88-5
CMF C5 H8 O2

CM 3

CRN 80-62-6
CMF C5 H8 O2

CM 4

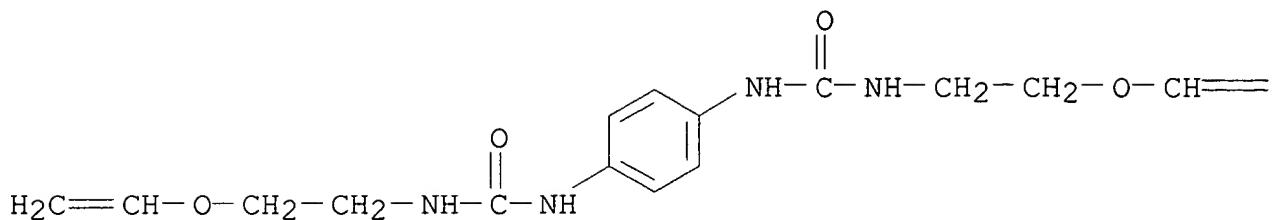
CRN 79-10-7
CMF C3 H4 O2

RN 160508-80-5 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl
 2-propenoate, N,N'-1,4-phenylenebis[N'-(2-(ethenyl)oxy)ethyl]urea
 and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 150610-14-3
CMF C16 H22 N4 O4

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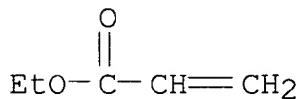


PAGE 1-B

$$\equiv \text{CH}_2$$

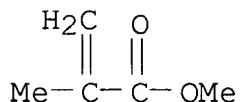
CM 2

CRN 140-88-5
CMF C5 H8 02



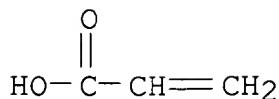
CM 3

CRN 80-62-6
CMF C5 H8 02



CM 4

CRN 79-10-7
CMF C3 H4 O2



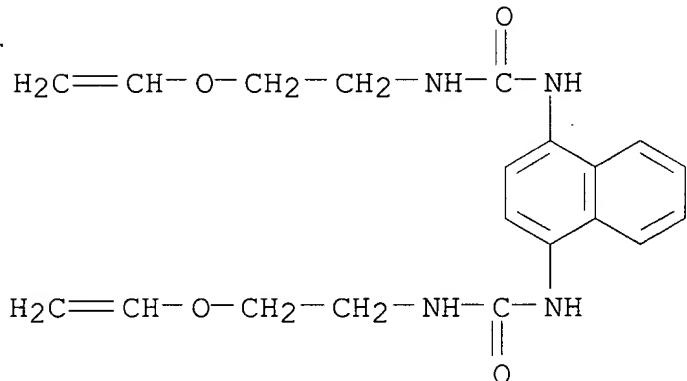
RN 160508-81-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl
2-propenoate, N,N'-(1,4-naphthalenediyl)bis[N'-(2-
(ethenyl)oxy)ethyl]urea] and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 160143-36-2

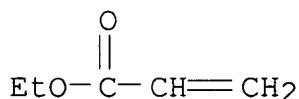
CMF C20 H24 N4 O4



CM 2

CRN 140-88-5

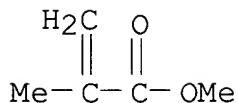
CMF C5 H8 O2



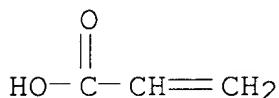
CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-10-7
CMF C3 H4 O2IC ICM G03F007-039
ICS G03F007-004CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)IT 160508-63-4 160508-64-5 160508-65-6 160508-66-7 160508-67-8
160508-68-9 160508-69-0 160508-71-4 160508-72-5 160508-73-6
160508-74-7 160508-75-8 160508-76-9 160508-77-0 160508-78-1
160508-79-2 160508-80-5 160508-81-6
160508-82-7 160508-83-8 160508-84-9
(crosslinked; pos.-working photoimaging compn.)L53 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
1995:289993 Document No. 122:68332 Positive-working photoresist
composition. Kondo, Shunichi; Aotani, Norimasa; Umehara, Akira
(Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 06148889
A2 19940527 Heisei, 46 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 1992-303512 19921113.

AB The title photoresist compn. contains (1) a compd. contg. .gtoreq.2 R1R2C:CR3O [R1-3 = H, alkyl, aryl, .gtoreq.2 may join to form satd. or olefinic ring] groups, (2) a linear polymer contg. acid as well as OH groups, and (3) a compd. releasing an acid on photo- or radiolysis, the components (1) and (2) being made to crosslink upon heating. The photoresist gives fine resist patterns when used to prep. lithog. plates, color proofs, overhead projector slides, and integrated circuits for semiconductor devices.

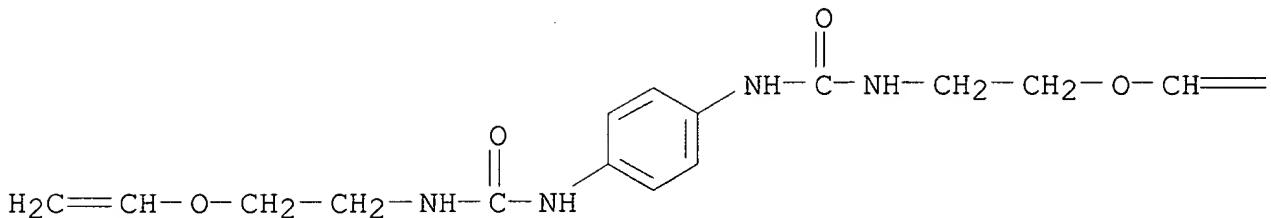
IT **150610-14-3 160143-35-1 160143-36-2**
(photoresist compn. contg.)

RN 150610-14-3 HCAPLUS

CN Urea, N,N''-1,4-phenylenebis[N'-(2-(ethoxyloxy)ethyl)- (9CI) (CA

INDEX NAME)

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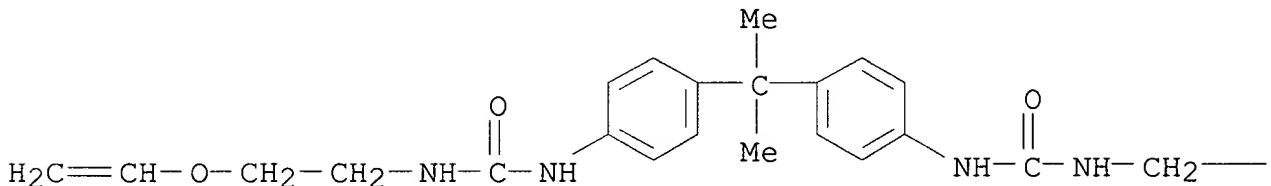
PAGE 1-B

 =CH_2

RN 160143-35-1 HCPLUS

CN Urea, N,N'-(1-methylethylidene)di-4,1-phenylene]bis[N'-(2-(ethenyloxy)ethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

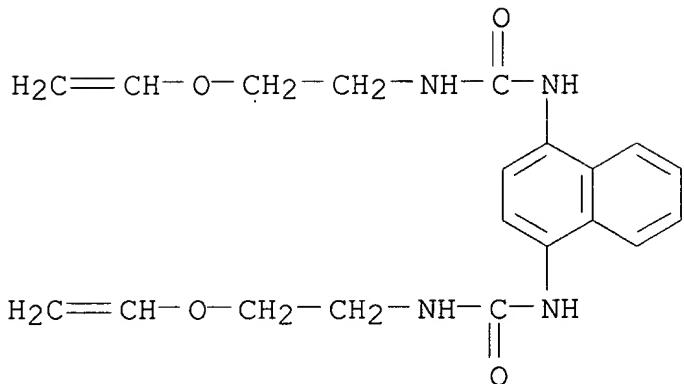


PAGE 1-B

 $\text{--CH}_2-\text{O}-\text{CH}=\text{CH}_2$

RN 160143-36-2 HCPLUS

CN Urea, N,N'-(1,4-naphthalenediyl)bis[N'-(2-(ethenyloxy)ethyl)- (9CI) (CA INDEX NAME)



IC ICM G03F007-039
 ICS G03F007-004; G03F007-038; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 IT 25135-39-1, Carboset 525 28136-81-4, 2-Hydroxyethyl
 methacrylate-methacrylic acid-methyl methacrylate copolymer
 31268-56-1 31693-08-0, 2-Hydroxyethyl methacrylate-methacrylic
 acid copolymer 34306-73-5, Carboset 526 52411-04-8 65697-21-4,
 Benzyl methacrylate-methacrylic acid copolymer 84040-76-6
 100493-79-6, Acrylic acid-benzyl methacrylate-2-hydroxyethyl
 methacrylate copolymer 103106-58-7, Carboset XL-44 141655-30-3,
 Benzyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid
 copolymer 142248-13-3 150610-14-3 150610-16-5
 150610-26-7 160143-33-9 160143-34-0 160143-35-1
160143-36-2 160143-37-3
 (photoresist compn. contg.)

L53 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
 1993:591928 Document No. 119:191928 Light-sensitive composition.
 Kondo, Shunichi; Umehara, Akirai; Aotani, Yoshimasa; Yamaoka,
 Tsuguno (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP
 536690 A1 19930414, 37 pp. DESIGNATED STATES: R: BE, DE, FR, GB.
 (English). CODEN: EPXXDW. APPLICATION: EP 1992-117029 19921006.
 PRIORITY: JP 1991-259431 19911007; JP 1991-259433 19911007.

AB A pos.-working light-sensitive compn. whose solv. in a developer is
 increased by irradn. of light comprises: (a) a vinyl ether compd.
 having at least one group represented by the following formula
 $\text{CH}_2=\text{CH}(\text{OR})\text{nO}$ [R represents a linear or branched alkylene group
 having 1 to 10 carbon atoms and n represents an integer of 0 or 1];
 (b) a compd. capable of being decompd. by irradn. of an actinic
 light ray or a radiant ray and releasing an acid; and (c) an
 alkali-sol. polymer. The light-sensitive compn. has high

sensitivity to light and permits the use of light of a wide wavelength range.

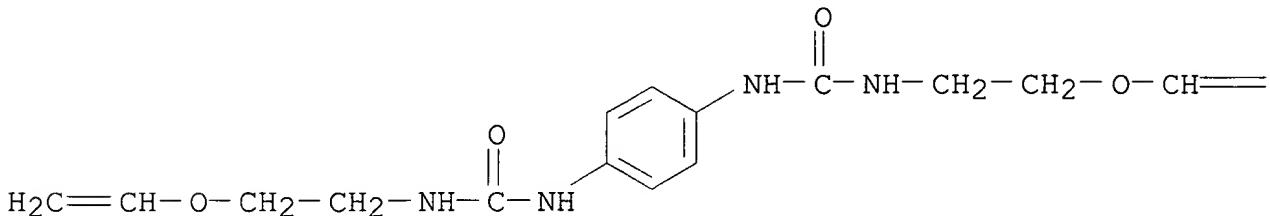
IT 150610-14-3

(photosensitive compn. contg., pos.-working)

RN 150610-14-3 HCPLUS

CN Urea, N,N'-1,4-phenylenebis[N'-(2-(ethoxyloxy)ethyl)- (9CI) (CA INDEX NAME)

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PAGE 1-B

=CH₂

IC ICM G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 84040-76-6 84563-49-5 121077-29-0 150610-13-2

150610-14-3 150610-15-4 150610-16-5 150610-17-6

150610-18-7 150610-19-8 150610-20-1 150610-21-2 150610-22-3

150610-23-4 150610-24-5 150610-25-6 150610-26-7

(photosensitive compn. contg., pos.-working)

L53 ANSWER 15 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN

1991:460848 Document No. 115:60848 Electrophotographic photoreceptor with photoconductive layer containing azo pigment. Miyazaki, Hajime; Miyaji, Toshie; Inai, Kazufumi; Go, Shintetsu (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 03002872 A2 19910109 Heisei, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-136221 19890531.

GI For diagram(s), see printed CA Issue.

AB The photoreceptor comprises a photoconductive layer contg. an azo pigment prep'd. by azo coupling a chain compd. having active methylene group with an arom. diazonium salt. The photoreceptor shows good photosensitivity and stable charge in repeated use.

Thus, an Al substrate was coated with a charge-generating layer contg. I and with a charge-transporting layer to give a photoreceptor.

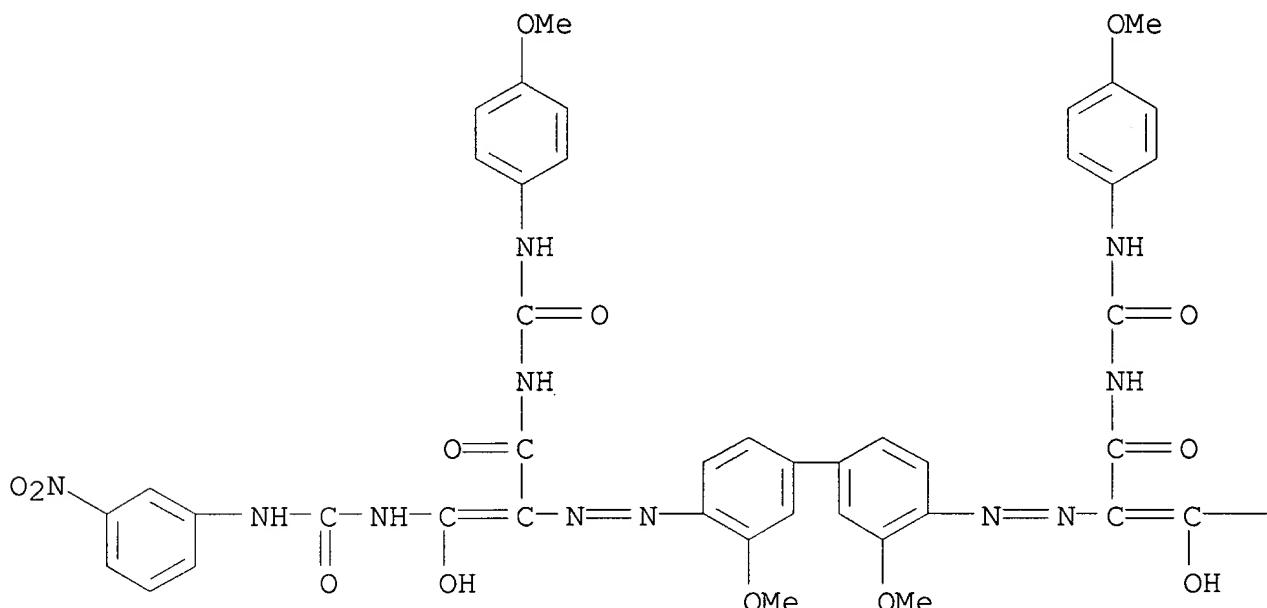
IT 135025-26-2 135061-87-9

(electrophotog. photoreceptor charge-generating agent)

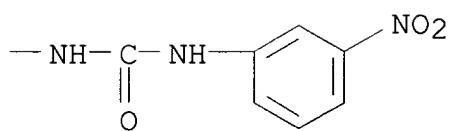
RN 135025-26-2 HCAPLUS

CN 2-Propenamide, 2,2'-(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[3-hydroxy-N-[(4-methoxyphenyl)amino]carbonyl]-3-[[[(3-nitrophenyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



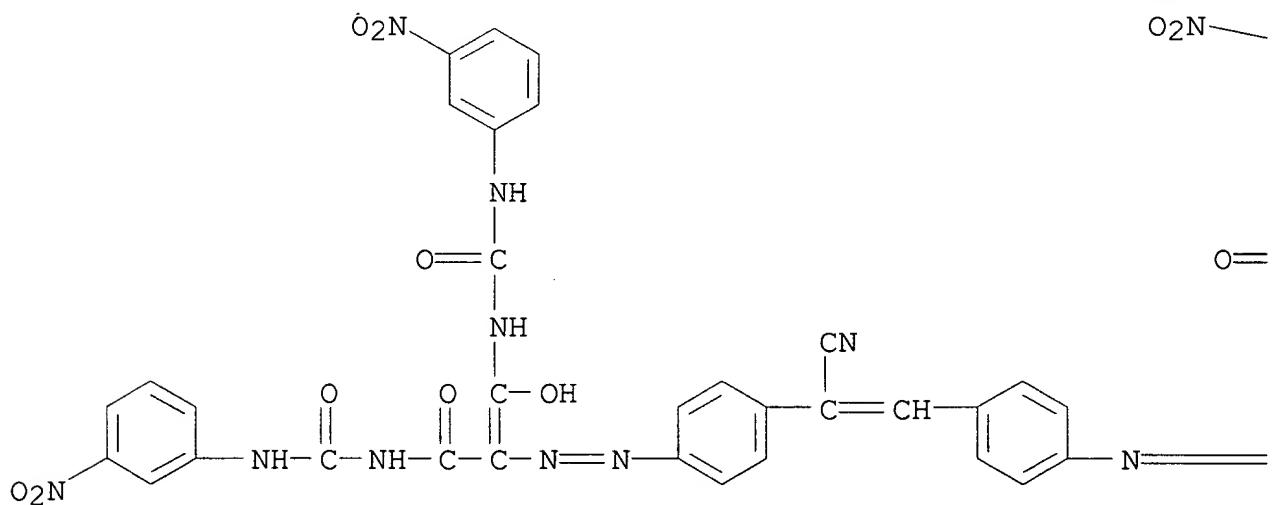
PAGE 1-B



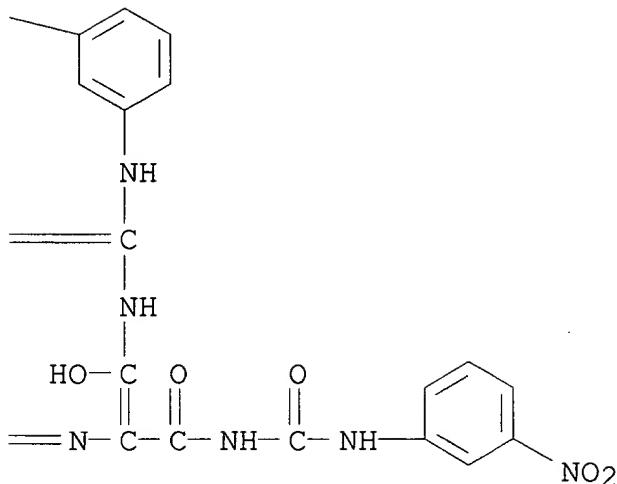
RN 135061-87-9 HCAPLUS

CN 2-Propenamide, 2,2'-[(1-cyano-1,2-ethenediyil)bis(4,1-phenyleneazo)]bis[3-hydroxy-N-[(3-nitrophenyl)amino]carbonyl]-3-[([(3-nitrophenyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

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IC ICM G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

Section cross-reference(s): 41

IT 135025-23-9 135025-24-0 135025-25-1 **135025-26-2**
135025-27-3 135025-28-4 135025-29-5 135025-30-8 135025-31-9
135025-32-0 135061-86-8 **135061-87-9**

(electrophotog. photoreceptor charge-generating agent)

L53 ANSWER 16 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN

1985:100800 Document No. 102:100800 Anticoccidial combinations
comprising polyether antibiotics and carbanilides. O'Doherty,
George O. P.; Clinton, Albert J. (Eli Lilly and Co., USA). Can. CA
1171782 A1 19840731, 54 pp. (English). CODEN: CAXXA4.
APPLICATION: CA 1980-367322 19801222. PRIORITY: US 1979-107304
19791226.AB Coccidiosis in poultry is controlled by oral administration of a
polyether antibiotic in combination with a carbanilide or a
thiocarbanilide in feeding materials. A no. of feed compns. are
given to which monensin [17090-79-8] and a carbonitrile such as
3,3'-bis(trifluoromethyl)-4,4'-dichlorocarbanilide [370-50-3] may
be added. A large no. of combinations were evaluated in chickens
infected with oocysts of *Eimeria cervulina* and *E. tenella*. The
combinations gave superior anticoccidial efficacy to the compds.
alone. The compds. were prep'd., e.g., by reaction of
3-nitro-5-(trifluoromethyl)-o-phenylenediamine [2078-01-5] with
2,4-dimethylphenyl isocyanate [51163-29-2] which gave

2-amino-3-nitro-5-(trifluoromethyl)-2',4-dimethylcarbanilide
[76393-19-6].

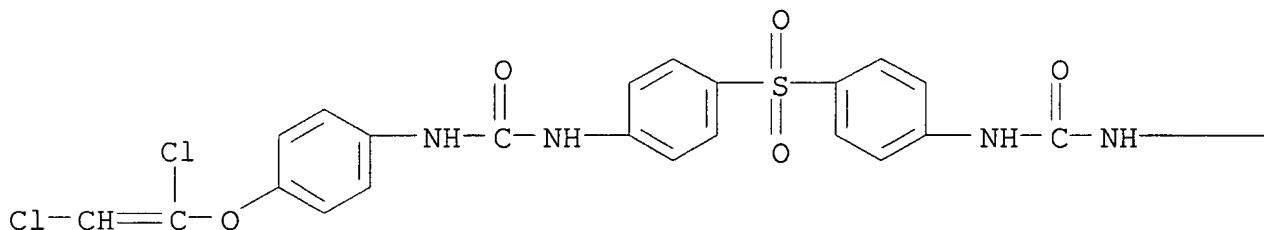
IT 55266-57-4

(anticoccidal compns. contg. polyether antibiotics and)

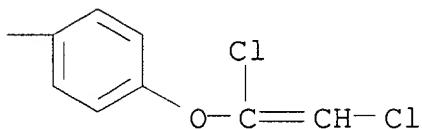
RN 55266-57-4 HCPLUS

CN Urea, N,N'-(sulfonyldi-4,1-phenylene)bis[N'-(4-[(1,2-dichloroethenyl)oxy]phenyl)- (9CI) (CA INDEX NAME)

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IC A61K031-17; A61K031-00; A23K001-17

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 18, 25

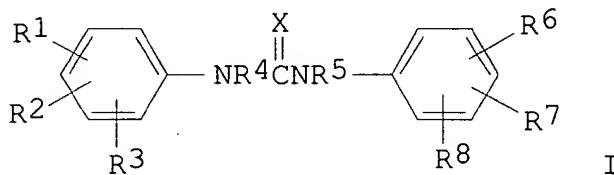
IT	370-50-3	1054-50-8	1054-51-9	1060-92-0	1061-91-2	1495-05-2
	1960-88-9	2053-92-1	2063-69-6	3824-74-6	4528-83-0	
	13208-44-1	14384-84-0	14384-85-1	14384-86-2	14384-94-2	
	14384-95-3	14384-96-4	14384-97-5	14384-98-6	14384-99-7	
	14538-36-4	14980-61-1	16588-81-1	16588-84-4	23747-70-8	
	23747-71-9	23747-76-4	34594-47-3	47635-17-6	55225-08-6	
	55225-09-7	55225-10-0	55225-11-1	55225-12-2	55225-13-3	
	55225-14-4	55225-15-5	55225-16-6	55225-17-7	55225-18-8	
	55225-19-9	55225-20-2	55225-21-3	55225-22-4	55225-23-5	
	55225-24-6	55225-25-7	55225-26-8	55225-27-9	55225-28-0	
	55225-29-1	55225-30-4	55225-31-5	55225-32-6	55225-33-7	
	55225-34-8	55225-35-9	55225-36-0	55225-37-1	55225-38-2	
	55225-39-3	55225-40-6	55225-41-7	55225-42-8	55225-43-9	
	55225-44-0	55225-45-1	55225-46-2	55225-47-3	55225-48-4	
	55225-49-5	55225-50-8	55225-51-9	55225-52-0	55225-53-1	

55225-54-2	55225-55-3	55225-56-4	55225-57-5	55225-58-6
55225-59-7	55225-60-0	55225-62-2	55225-63-3	55225-64-4
55225-65-5	55225-66-6	55225-67-7	55225-68-8	55225-69-9
55225-70-2	55225-71-3	55225-72-4	55225-73-5	55225-74-6
55225-75-7	55225-76-8	55225-77-9	55225-78-0	55225-79-1
55225-80-4	55225-81-5	55225-82-6	55225-84-8	55225-85-9
55266-54-1	55266-55-2	55266-56-3	55266-57-4	
55642-23-4	76393-07-2	76393-09-4	76393-10-7	76393-11-8
76393-12-9	76393-13-0	76393-14-1	76393-15-2	76393-26-5
76393-30-1	76393-31-2	76393-32-3	76393-33-4	76393-34-5
76393-35-6	76393-36-7	76393-37-8	76393-38-9	76393-39-0
76393-40-3	76393-41-4	76393-42-5	76393-43-6	76393-44-7
76393-45-8	76393-46-9	76393-47-0	76393-48-1	76393-49-2
76393-50-5	76393-51-6	76393-52-7	76393-53-8	76393-54-9
76393-55-0	76393-57-2	76393-59-4	76393-60-7	76393-61-8
76393-62-9	76393-63-0	76393-64-1	76393-65-2	76393-66-3
76393-67-4	76393-68-5	76393-69-6	76393-70-9	93588-23-9
93619-29-5	93619-30-8			

(anticoccidal compns. contg. polyether antibiotics and)

L53 ANSWER 17 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN
 1981:71498 Document No. 94:71498 Anticoccidal composition and
 carbanilides. Callender, Maurice Emerson; Jeffers, Thomas Kirk;
 O'Doherty, George Oliver Plunkett; Clinton, Albert James (Eli Lilly
 and Co., USA). Eur. Pat. Appl. EP 15110 19800903, 93 pp.
 (English). CODEN: EPXXDW. APPLICATION: EP 1980-300387 19800211.

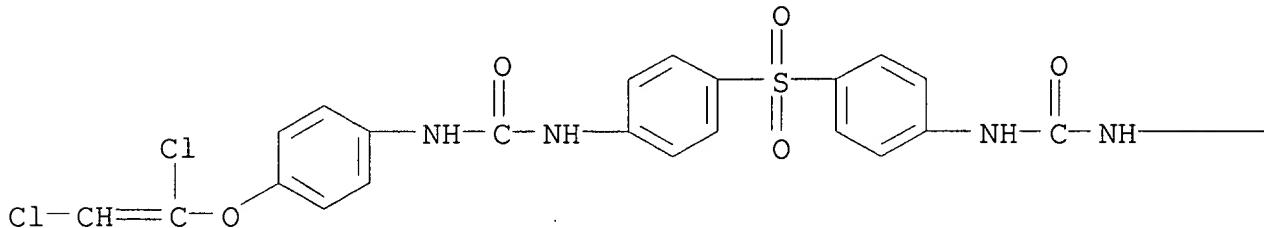
GI



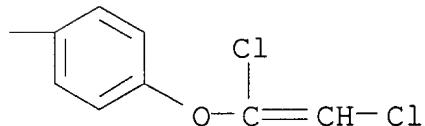
AB Anticoccidal compns. such as feedstuffs or premixes for poultry such as chicken or turkey contain a combination of a polyether antibiotic and a carbanilide I (R1, R2, and R3 = H, halogen, CN, NH2, NO2, C1-6 alkyl, C2-4 alkanoylamino, C1-4 alkylthio, substituted phenoxy, etc.; R4 and R5 = H or C1-4 alkyl; R6, R7, and R8 = H, halogen, CN, NH2, C2-4 haloalkenyloxy, etc.). Thus, a premix contg. 2-amino-2'-chloro-3,4'-dinitro-5-(trifluoromethyl)carbanilide [76393-24-3] and monensin [17090-79-8] each at 50 ppm effectively controlled coccidiosis in 1-wk broiler chicks infected with *Eimeria acervulina* and *E. tenella*.
 IT **55266-57-4**

(anticoccidial compns. contg. polyether antibiotic and)
 RN 55266-57-4 HCAPLUS
 CN Urea, N,N'-(sulfonyldi-4,1-phenylene)bis[N'-(4-[(1,2-dichloroethenyl)oxy]phenyl)- (9CI) (CA INDEX NAME)

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IC A61K045-06; A61K035-66; C07C127-19; A61K035-66

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 18, 25

IT 1054-50-8	1495-05-2	14384-84-0	14384-85-1	14384-86-2
14384-96-4	14538-36-4	55225-09-7	55225-10-0	55225-11-1
55225-14-4	55225-16-6	55225-17-7	55225-19-9	55225-20-2
55225-21-3	55225-22-4	55225-23-5	55225-24-6	55225-25-7
55225-26-8	55225-27-9	55225-28-0	55225-29-1	55225-30-4
55225-31-5	55225-32-6	55225-34-8	55225-35-9	55225-36-0
55225-37-1	55225-38-2	55225-39-3	55225-40-6	55225-41-7
55225-42-8	55225-43-9	55225-44-0	55225-45-1	55225-46-2
55225-47-3	55225-48-4	55225-49-5	55225-50-8	55225-51-9
55225-52-0	55225-53-1	55225-54-2	55225-55-3	55225-56-4
55225-57-5	55225-58-6	55225-59-7	55225-60-0	55225-61-1
55225-62-2	55225-63-3	55225-64-4	55225-66-6	55225-67-7
55225-68-8	55225-69-9	55225-70-2	55225-71-3	55225-72-4
55225-73-5	55225-75-7	55225-76-8	55225-77-9	55225-78-0
55225-79-1	55225-80-4	55225-81-5	55225-82-6	55225-84-8
55225-85-9	55266-55-2	55266-56-3	55266-57-4	
55642-23-4	76393-69-6	76393-70-9		

(anticoccidial compns. contg. polyether antibiotic and)

L53 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2004 ACS on STN
 1975:139800 Document No. 82:139800 Diphenyl(thio)ureas. Raether, Wolfgang; Schoenowsky, Hubert; Hoerlein, Gerhard; Winkelmann, Erhard (Farbwerke Hoechst A.-G.). Ger. Offen. DE 2334355 19750116, 20 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1973-2334355 19730706.

GI For diagram(s), see printed CA Issue.

AB Eighty-eight (thio)ureas I [X = O or S; R = e.g. H, 2-Cl, 3-CF₃, or 4-Me; R₁ = e.g. 4-MeO, 4-MeS, 4-CF₃S, 4-CCl₂HCF₂O, 4-ClC₆H₄O, or 4-[4-(3-CF₃SC₆H₄NHCONH)C₆H₄SO₂]; R₂ = e.g. H, 4-Cl, 5-NO₂, 5-CF₃, or 4-ClCH:CClO; R₃ = e.g. H, 4-MeO, or 4-Cl; R₄ = e.g. H, 6-CF₃, or 5-Cl], used in the treatment of coccidiosis in chicken, were manufd. in 75-90% yield by reaction of phenyl iso(thio)cyanates with anilines in inert solvents contg. a tertiary org. base 1 hr at reflux temp.

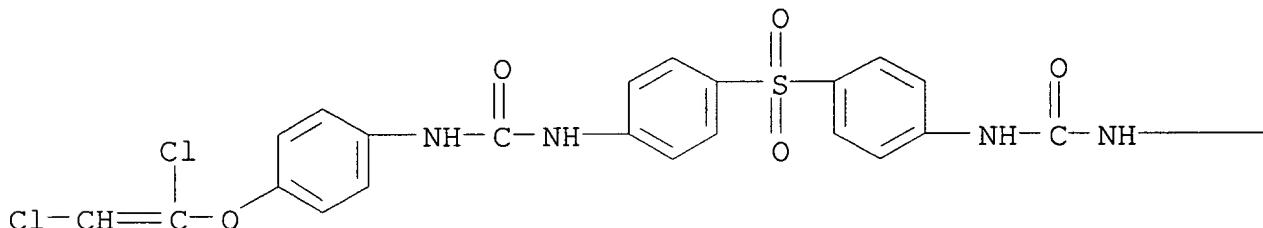
IT 55266-57-4P

(manuf. of coccidiostatic)

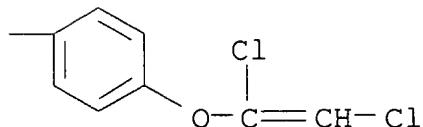
RN 55266-57-4 HCAPLUS

CN Urea, N,N'-(sulfonyldi-4,1-phenylene)bis[N'-(4-[(1,2-dichloroethenyl)oxy]phenyl)- (9CI) (CA INDEX NAME)

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IC C07C; A61K

CC 25-21 (Noncondensed Aromatic Compounds)

Section cross-reference(s): 5

IT 1054-50-8P 1054-51-9P 1061-91-2P 1495-05-2P 2063-69-6P
 55225-08-6P 55225-09-7P 55225-10-0P 55225-11-1P 55225-12-2P

55225-13-3P	55225-14-4P	55225-15-5P	55225-16-6P	55225-17-7P
55225-18-8P	55225-19-9P	55225-20-2P	55225-21-3P	55225-22-4P
55225-23-5P	55225-24-6P	55225-25-7P	55225-26-8P	55225-27-9P
55225-28-0P	55225-29-1P	55225-30-4P	55225-31-5P	55225-32-6P
55225-33-7P	55225-34-8P	55225-35-9P	55225-36-0P	55225-37-1P
55225-38-2P	55225-39-3P	55225-40-6P	55225-41-7P	55225-42-8P
55225-43-9P	55225-44-0P	55225-45-1P	55225-46-2P	55225-47-3P
55225-48-4P	55225-49-5P	55225-50-8P	55225-51-9P	55225-52-0P
55225-53-1P	55225-54-2P	55225-55-3P	55225-56-4P	55225-57-5P
55225-58-6P	55225-59-7P	55225-60-0P	55225-61-1P	55225-62-2P
55225-63-3P	55225-64-4P	55225-65-5P	55225-66-6P	55225-67-7P
55225-68-8P	55225-69-9P	55225-70-2P	55225-71-3P	55225-72-4P
55225-73-5P	55225-74-6P	55225-75-7P	55225-76-8P	55225-77-9P
55225-78-0P	55225-79-1P	55225-80-4P	55225-81-5P	55225-82-6P
55225-83-7P	55225-84-8P	55225-85-9P	55266-54-1P	55266-55-2P
55266-56-3P 55266-57-4P		55642-23-4P		

(manuf. of coccidiostatic)

L53 ANSWER 19 OF 20 HCPLUS COPYRIGHT 2004 ACS on STN
 1958:56261 Document No. 52:56261 Original Reference No. 52:10188b-d
 Acrylyl isocyanates and their polymers. Lieser, Theodor (I. P.
 Bemberg A.-G.). DE 827553 19520110 (Unavailable). APPLICATION: DE

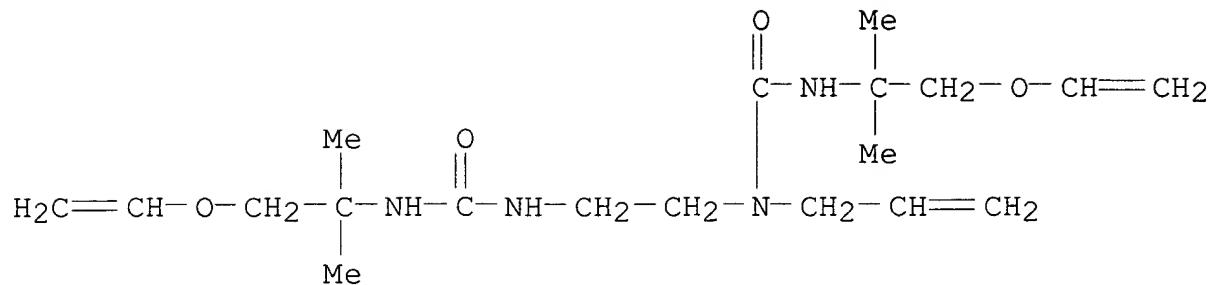
AB Acrylyl isocyanate (I) and derivs. which give on polymerization synthetic resins are obtained by the reaction of AgOCN and acrylyl chloride (II). To 180 g. II in 300 cc. Et₂O was added slowly an ice-cold suspension of 300 g. AgOCN in 500 cc. Et₂O, the mixt. stirred 24 hrs., filtered, another 50 g. AgOCN added to remove all Cl, the mixt. kept overnight on ice, and to the filtered soln. of I an ethereal soln. of aniline added to ppt. N,-phenyl-N'-acrylylurea, m. 147.degree.. Also prep'd. were N,-phenyl-N'-methacrylylurea, m. 129.degree.; (CH₂:CHCONHCO₂CH₂)₂, m. 168.degree.; benzylacrylyl urethan, m. 115.degree.; and benzyl .alpha.-chloroacrylyl urethan, m. 115.degree.. The acrylyl urethans and ureas polymerized when heated 5-10.degree. above the m.p. Addn. of benzoyl peroxide was necessary for polymerization of the methacrylyl derivs. and I polymerized under ultraviolet radiation.

IT **110393-83-4**, Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- **114863-77-3**, Urea, 1-benzyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- **122542-31-8**, Urea, 1,1'-ethylenebis[1-benzyl-3-(1,1-dimethyl-2-vinyloxyethyl)- **124158-36-7**, Urea, 1-phenyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- **124403-16-3**, Urea, 1-dodecyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-

(prepn. of)

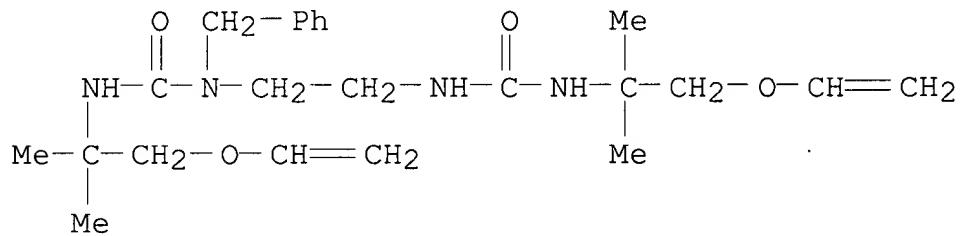
RN 110393-83-4 HCPLUS

CN Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



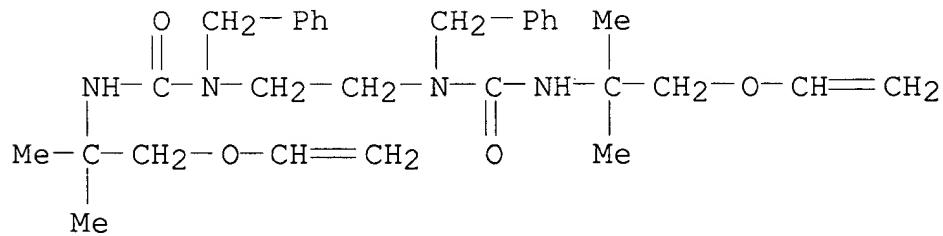
RN 114863-77-3 HCAPLUS

CN Urea, 1-benzyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)



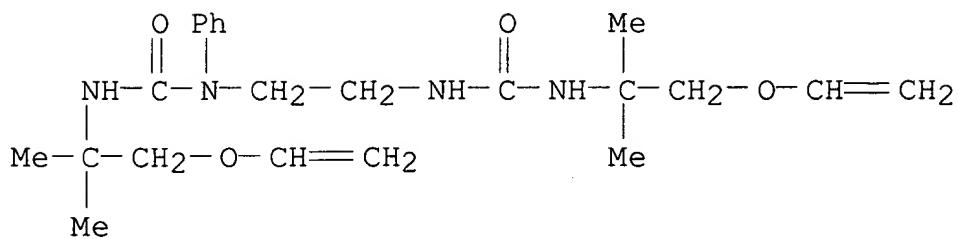
RN 122542-31-8 HCAPLUS

CN Urea, 1,1'-ethylenebis[1-benzyl-3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)

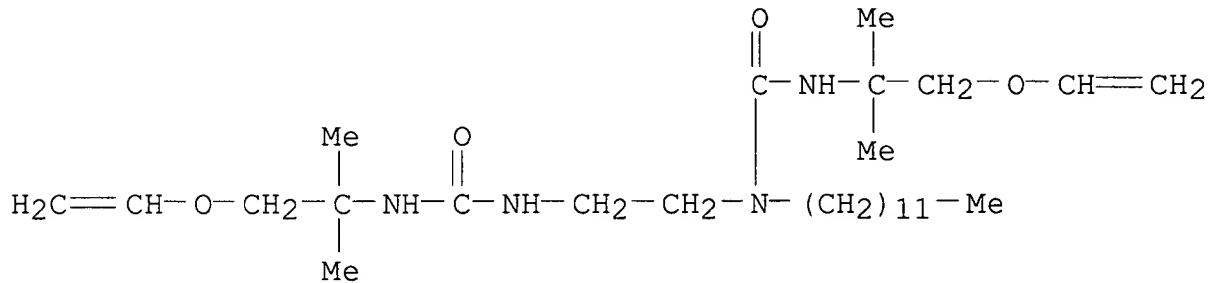


RN 124158-36-7 HCAPLUS

CN Urea, 1-phenyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)



RN 124403-16-3 HCPLUS

CN Urea, 1-dodecyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)]

NCL 39C; 25-01

CC 10 (Organic Chemistry)

IT 13641-97-9, Isocyanic acid, anhydride with acrylic acid
24683-82-7, Carbamic acid, acryloyl-, ethylene ester 71868-35-4,
Urea, 1-acryloyl-3-phenyl- 102254-08-0, Urea, 1-methacryloyl-3-phenyl- 110393-83-4, Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 114863-77-3, Urea, 1-benzyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 122542-31-8, Urea, 1,1'-ethylenebis[1-benzyl-3-(1,1-dimethyl-2-vinyloxyethyl)- 124158-36-7, Urea, 1-phenyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 124403-16-3, Urea, 1-dodecyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (prepn. of)

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1958:56260 Document No. 52:56260 Original Reference No.

52:10187f-i,10188a-b Polymerizable poly(ethylenically unsaturated compounds), and polymers thereof. Melamed, Sidney (Rohm & Haas Co.). US 2824858 19580225 (Unavailable). APPLICATION: US .

GI For diagram(s), see printed CA Issue.

AB Unsatd. ethers were prep'd. by treating 1 mole polyisocyanate with 2 or 3 moles aminoalkyl vinyl ether. Thus, 26.8 g. 2-aminoethyl vinyl

ether in 50 ml. C₆H₆ was added slowly to 35.4 g. 1,8-diisocyanato-p-menthane in 100 ml. dry C₆H₆, which had previously been cooled, the pptd. solid filtered off, and recrystd. from MeOH to give 17 g. CH₂:CHOCH₂CH₂NHOCNHCMe.CH₂.CH₂.CH(CMe₂NHCO-NHCH₂CH₂OCH:CH₂).CH₂.CH₂, m. 145-6.degree.. Similarly prep'd. were 1,6-bis(2-vinyloxyethylureido)hexane, m. 171.degree., and the products of: OCN(CH₂)₆NCO and CH₂:CHOCH₂CH₂NHMe; OCN(CH₂)₁₀NCO and CH₂:CHO(CH₂)₅NH₂; (p-OCNC₆H₄)₂CH₂ and CH₂:CHOCH(CH₁₆H₃₃)CH₂NH₂; 2,4-diisocyanato-1-chlorobenzene and (CH₂:CHOCH₂CH₂)₂NH; 2,6-diisocyanatonaphthalene and CH₂:CHOCH₂CH₂NHC₆H₃C₁₂-2,4; CH(C₆H₄NCO-p)₃ and CH₂:CHOCH₂CH₂NHMe; di(carbamyl chloride) of piperazine (I) and 2-(N-methylaminoethyl) vinyl ether; bis(carbamyl chloride) of N,N'-dilaurylhexamethylenediamine and .beta.-hydroxyethylaminoethyl vinyl ether; bis(carbamyl chloride) of N,N'-bis-(p-chlorophenyl)hexamethylenediamine and .beta.-cyanoethylaminoethyl vinyl ether; bis(carbamyl chloride) of N,N'-dibenzylidiphenylene-4,4'-diamine and octadecylaminoethyl vinyl ether; I and 3-dimethylaminopropylaminoethyl vinyl ether; bis(carbamyl chloride) of N,N'-bis(p-nitrophenyl)hexamethylenediamine and benzylaminoethyl vinyl ether; I and 4-aminohexyl vinyl ether; bis(carbamyl chloride) of N,N'-diethylphenylenediamine and 2-aminoisobutyl vinyl ether; trimethylenediamine and 2-isocyanatoisobutyl vinyl ether (II); I and 2-(N-tert-octylamino)ethyl vinyl ether; I and 2-[N-(p-chlorophenyl)amino]ethyl vinyl ether; and II with ethylenediamine, tetramethylenediamine, decamethylenediamine, phenylenediamine, 1,2,6-triaminohexane, piperazine, N,N'-dibutylethylenediamine, N,N'-dibenzylethylenediamine, N-benzylethylenediamine, N-phenylethylenediamine, N-dodecylethyl-enediamine, and N-allylethylenediamine. Polymers were prep'd. using these compds. and di-Me azoisobutyrate, 4-vinylpyridine, and Me methacrylate. These compds. are valuable in polymer formation and for insecticides.

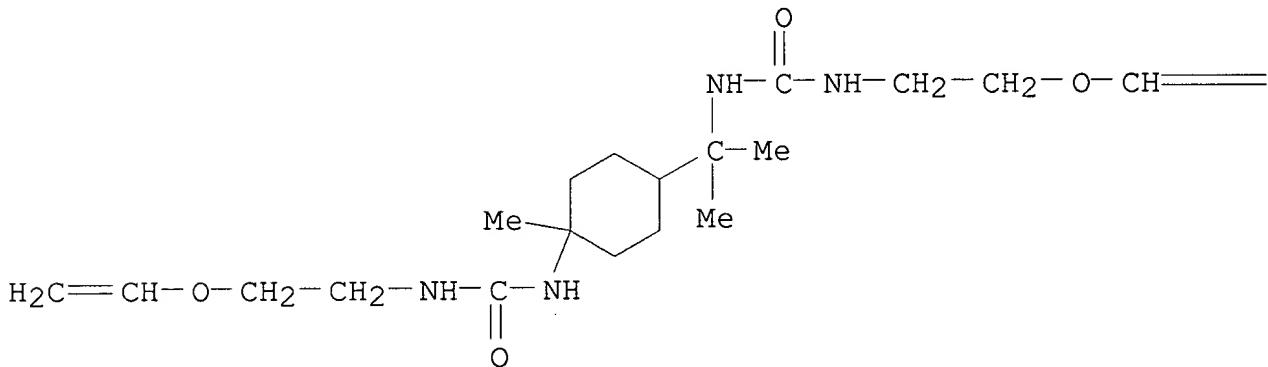
IT 103507-15-9, Urea, 1-(2-vinyloxyethyl)-3-{8-[3-(2-vinyloxyethyl)ureido]-p-menth-1-yl}- 108517-76-6, Urea, 1,1',1''-(methyldynetri-p-phenylene)tris[3-methyl-3-(2-vinyloxyethyl)- 109452-28-0, Urea, 1,1'-hexamethylenebis[3-(2-vinyloxyethyl)- 109501-98-6, Urea, 1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 109568-61-8, Urea, 1,1'-tetramethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 109643-40-5, Urea, 1,1'-hexamethylenebis[3-methyl-3-(2-vinyloxyethyl)- 109817-70-1, Urea, 1,1'-trimethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 110393-83-4, Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 112555-37-0, Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 117900-00-2, Urea, 1,1',1'''-(1,2,6-hexanetriyl)tris[3-(1,1-dimethyl-2-vinyloxyethyl)- 118871-09-3, Urea, 1,1'-(4-chloro-m-phenylene)bis[3,3-bis(2-

vinyloxyethyl)- 119568-52-4, Urea, 1,1'-(2,6-naphthylene)bis[3-(2,4-dichlorophenyl)-3-(2-vinyloxyethyl)- 119721-33-4, Urea, 1,1'-decamethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 119721-34-5, Urea, 1,1'-ethylenebis[1-butyl-3-(1,1-dimethyl-2-vinyloxyethyl)- 120122-11-4, Urea, 1,1'-hexamethylenebis[3-benzyl-1-(p-nitrophenyl)-3-(2-vinyloxyethyl)- 120526-81-0, Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-1-ethyl- 121446-76-2, Urea, 1,1'-hexamethylenebis[1-(p-chlorophenyl)-3-(2-cyanoethyl)-3-(2-vinyloxyethyl)- 122337-39-7, Urea, 1,1'-hexamethylenebis[1-dodecyl-3-(2-hydroxyethyl)-3-(2-vinyloxyethyl)- 122359-64-2, Urea, 1,1'-(4,4'-biphenylylene)bis[1-benzyl-3-octadecyl-3-(2-vinyloxyethyl)- 122493-75-8, Urea, 1,1'-decamethylenebis[3-(5-vinyloxyethyl)- 124113-04-8, Urea, 1,1'-(methylenedi-p-phenylene)bis[3-(2-vinyloxyoctadecyl)- 124403-16-3, Urea, 1-dodecyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(prepn. of)

RN 103507-15-9 HCPLUS

CN Urea, 1-(2-vinyloxyethyl)-3-[8-[3-(2-vinyloxyethyl)ureido]-p-menth-1-yl]- (6CI) (CA INDEX NAME)

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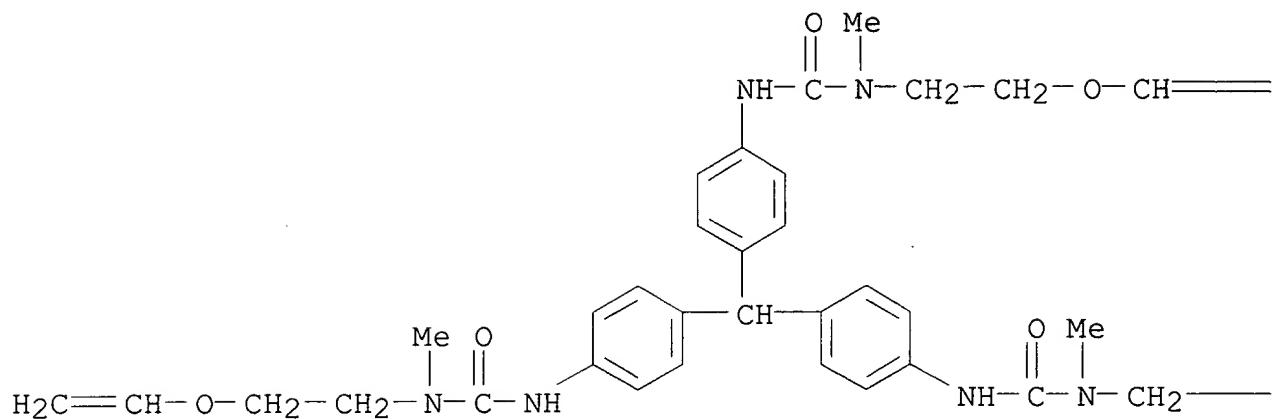
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RN 108517-76-6 HCPLUS

CN Urea, 1,1',1'''-(methylidynetri-p-phenylene)tris[3-methyl-3-(2-

vinyloxyethyl)- (6CI) (CA INDEX NAME)

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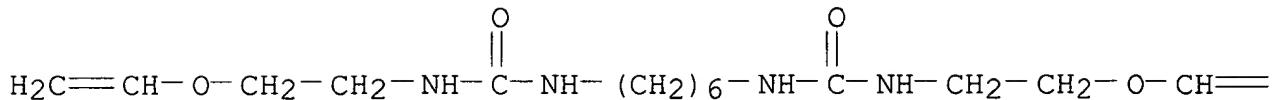


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=CH₂—CH₂-O-CH=CH₂

RN 109452-28-0 HCPLUS
 CN Urea, 1,1'-hexamethylenebis[3-(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)]

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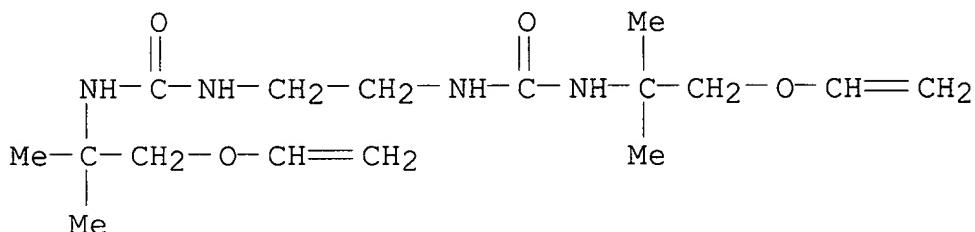


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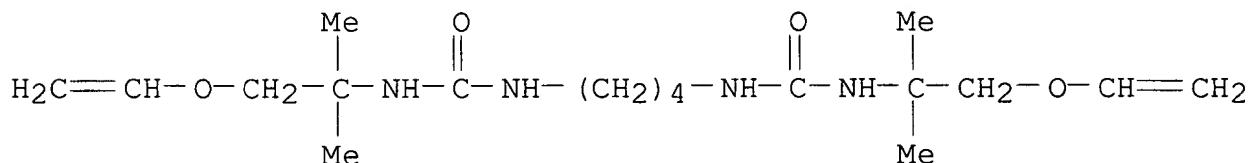
RN 109501-98-6 HCPLUS

CN Urea, 1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



RN 109568-61-8 HCPLUS

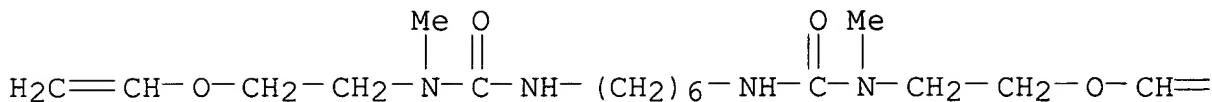
CN Urea, 1,1'-tetramethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



RN 109643-40-5 HCPLUS

CN Urea, 1,1'-hexamethylenebis[3-methyl-3-(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)

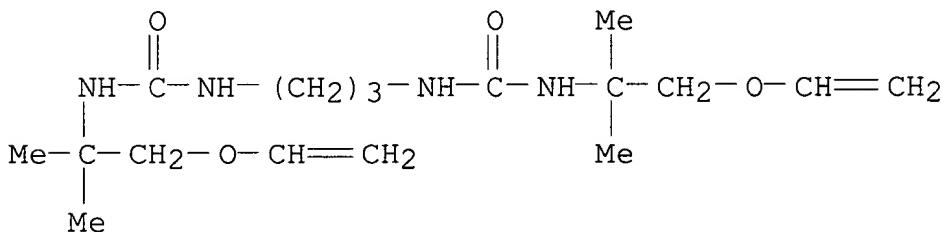
PAGE 1-A



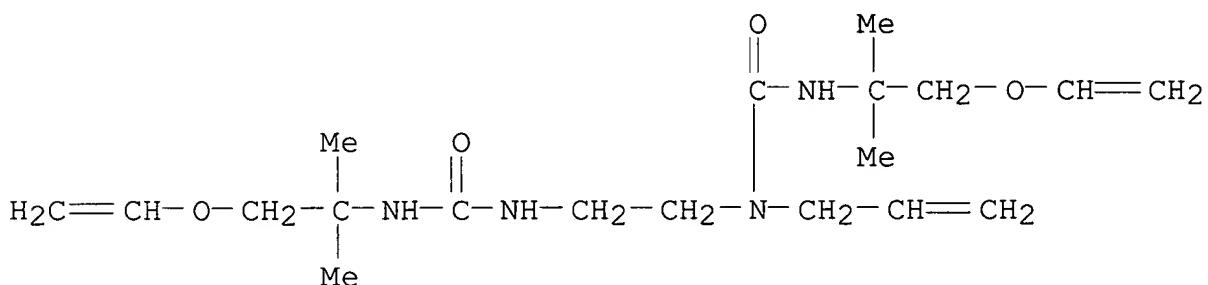
PAGE 1-B

 $=\text{CH}_2$

RN 109817-70-1 HCPLUS

CN Urea, 1,1'-trimethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)] (6CI)
(CA INDEX NAME)

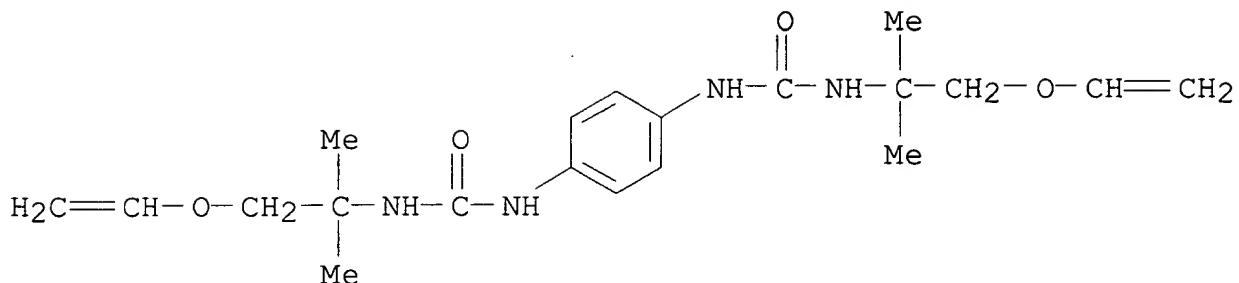
RN 110393-83-4 HCPLUS

CN Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)] (6CI)
(CA INDEX NAME)

RN 112555-37-0 HCPLUS

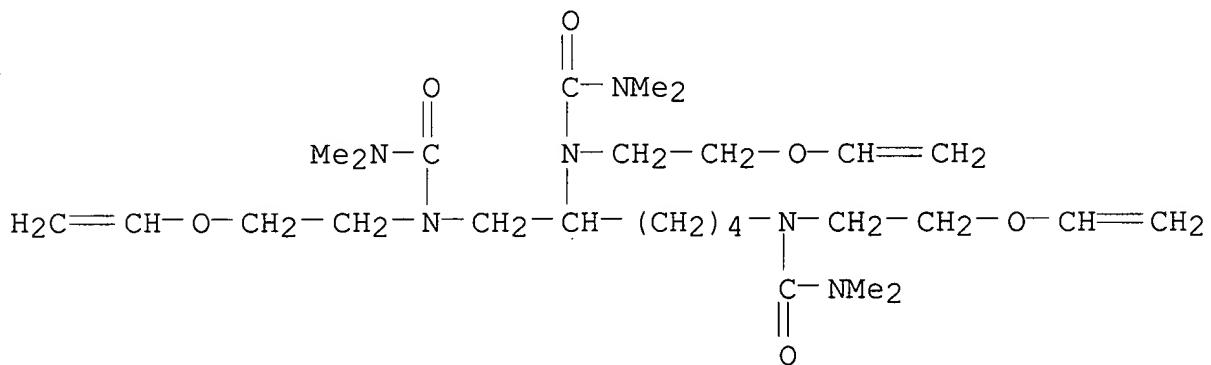
CN Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)] (6CI)

(CA INDEX NAME)



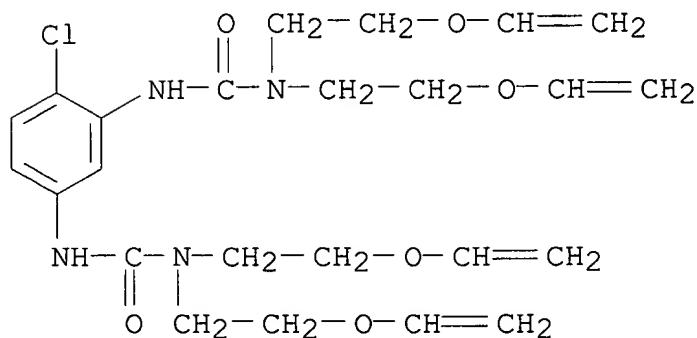
RN 117900-00-2 HCPLUS

CN Urea, 1,1',1'''-(1,2,6-hexanetriyl)tris[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)]



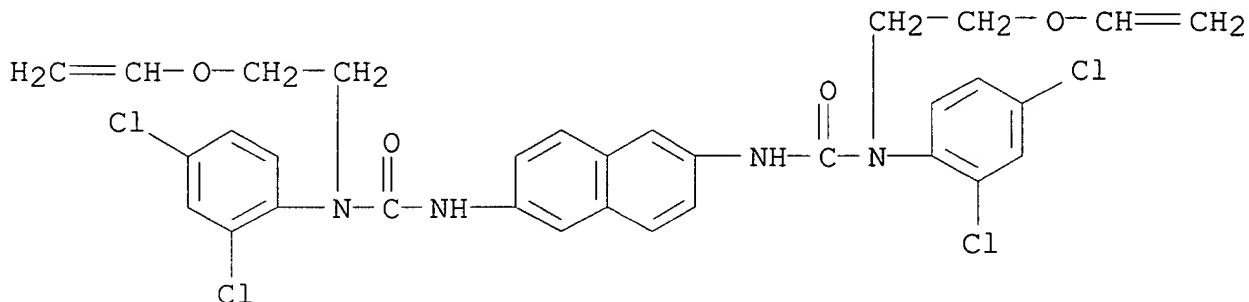
RN 118871-09-3 HCPLUS

CN Urea, 1,1'-(4-chloro-m-phenylene)bis[3,3-bis(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)]



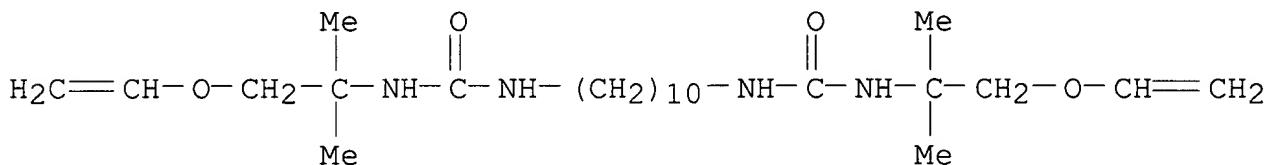
RN 119568-52-4 HCPLUS

CN Urea, 1,1'-(2,6-naphthylene)bis[3-(2,4-dichlorophenyl)-3-(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



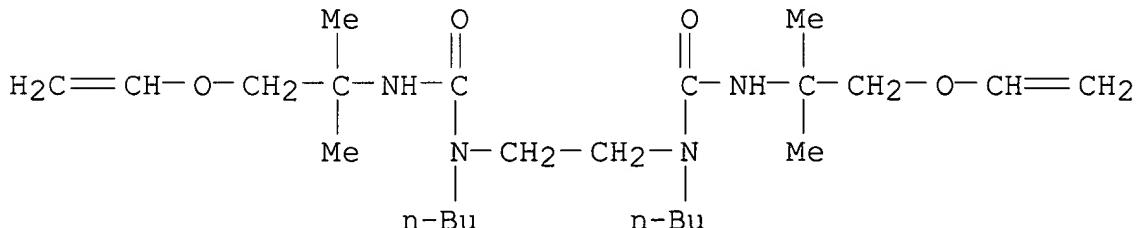
RN 119721-33-4 HCPLUS

CN Urea, 1,1'-decamethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



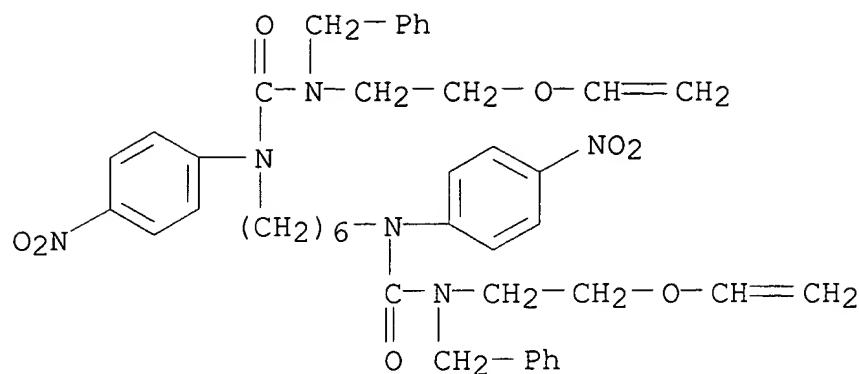
RN 119721-34-5 HCPLUS

CN Urea, 1,1'-ethylenebis[1-butyl-3-(1,1-dimethyl-2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



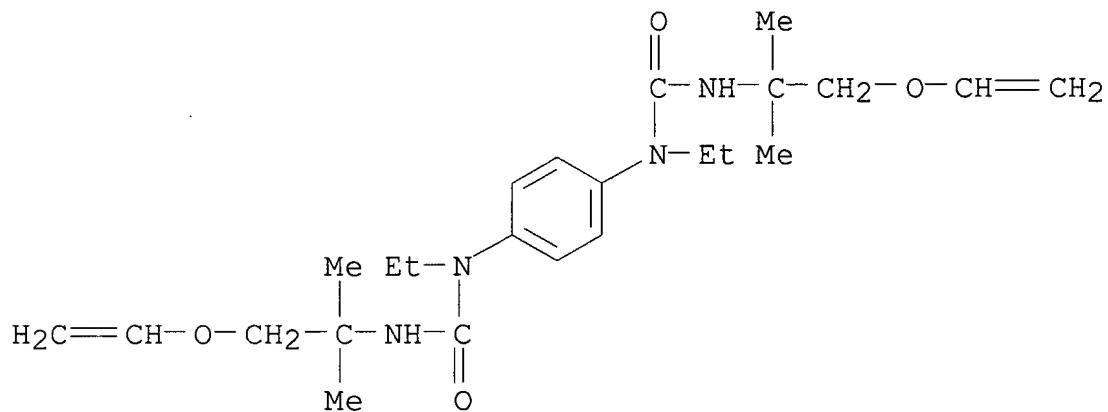
RN 120122-11-4 HCPLUS

CN Urea, 1,1'-hexamethylenebis[3-benzyl-1-(p-nitrophenyl)-3-(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



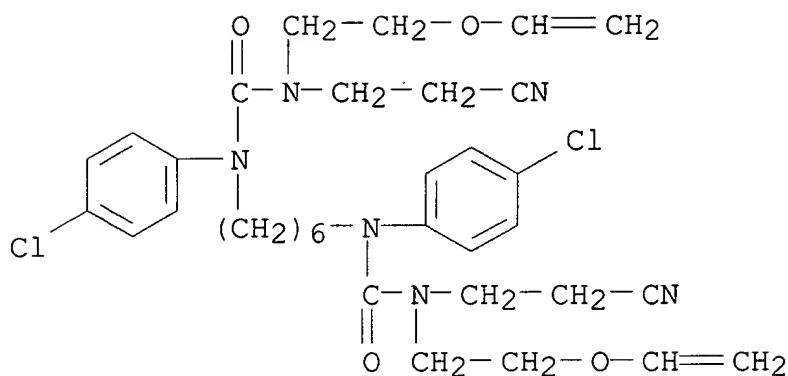
RN 120526-81-0 HCPLUS

CN Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-1-ethyl- (6CI) (CA INDEX NAME)]



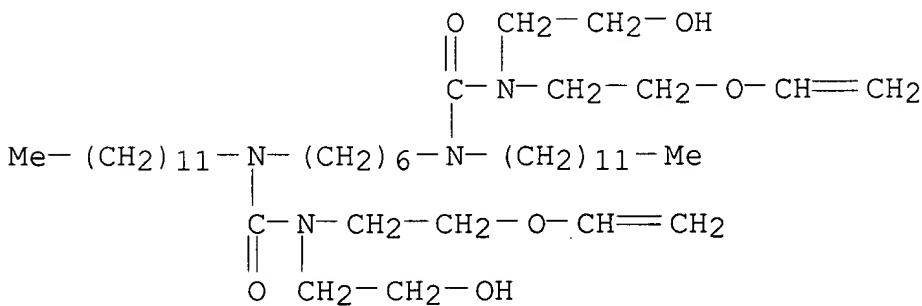
RN 121446-76-2 HCPLUS

CN Urea, 1,1'-hexamethylenebis[1-(p-chlorophenyl)-3-(2-cyanoethyl)-3-(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)]



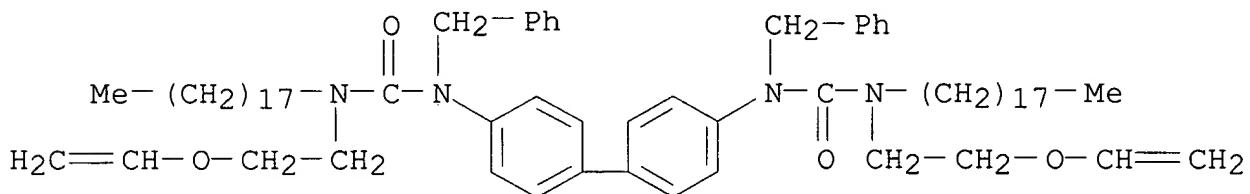
RN 122337-39-7 HCPLUS

CN Urea, 1,1'-hexamethylenebis[1-dodecyl-3-(2-hydroxyethyl)-3-(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



RN 122359-64-2 HCPLUS

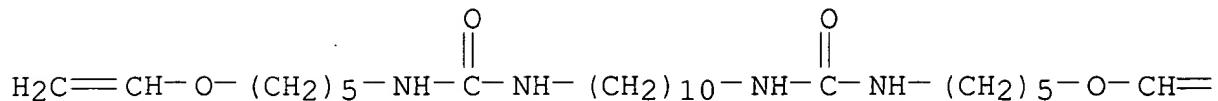
CN Urea, 1,1'-(4,4'-biphenylene)bis[1-benzyl-3-octadecyl-3-(2-vinyloxyethyl)- (6CI) (CA INDEX NAME)



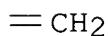
RN 122493-75-8 HCPLUS

CN Urea, 1,1'-decamethylenebis[3-(5-vinyloxpentyl)- (6CI) (CA INDEX NAME)

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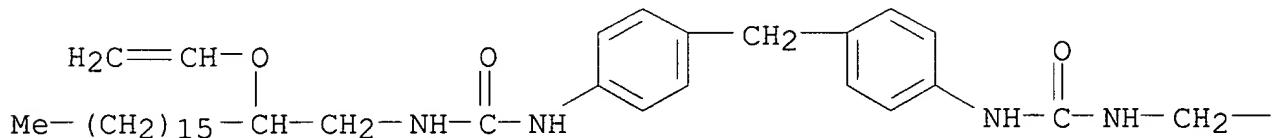
PAGE 1-B



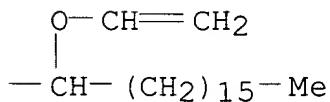
RN 124113-04-8 HCPLUS

CN Urea, 1,1'-(methylenedi-p-phenylene)bis[3-(2-vinyloxyoctadecyl)-
(6CI) (CA INDEX NAME)

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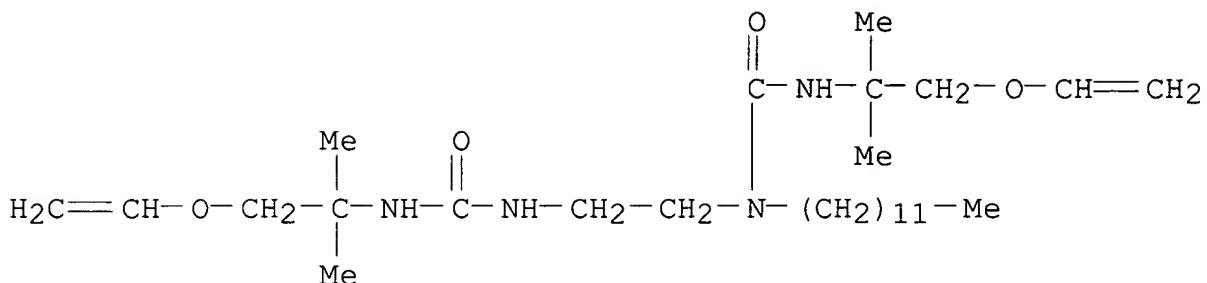


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RN 124403-16-3 HCPLUS

CN Urea, 1-dodecyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-
(6CI) (CA INDEX NAME)



CC 10 (Organic Chemistry)

IT 9002-88-4, Ethylene polymer 101880-61-9, 1,4-Piperazinedicarboxamide, N,N'-bis(1,1-dimethyl-2-vinyloxyethyl)-102944-94-5, 1,4-Piperazinedicarboxamide, N,N'-bis(1-ethyl-4-vinyloxybutyl)- 103507-15-9, Urea, 1-(2-vinyloxyethyl)-3-[8-[3-(2-vinyloxyethyl)ureido]-p-menth-1-yl]- 103757-55-7, 1,4-Piperazinedicarboxanilide, 4',4''-dichloro-N,N'-bis(2-vinyloxyethyl)- 107525-17-7, 1,4-Piperazinedicarboxamide, N,N'-dimethyl-N,N'-bis(2-vinyloxyethyl)- 108517-76-6, Urea, 1,1',1'''-(methylidynetri-p-phenylene)tris[3-methyl-3-(2-vinyloxyethyl)- 109452-28-0, Urea, 1,1'-hexamethylenebis[3-(2-vinyloxyethyl)- 109501-98-6, Urea, 1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 109568-61-8, Urea, 1,1'-tetramethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 109643-40-5, Urea, 1,1'-hexamethylenebis[3-methyl-3-(2-vinyloxyethyl)- 109817-70-1, Urea, 1,1'-trimethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 110393-83-4, Urea, 1-allyl-1,1'-ethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 112555-37-0, Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 113687-45-9, 1,4-Piperazinedicarboxamide, N,N'-bis(3-dimethylaminopropyl)-N,N'-bis(2-vinyloxyethyl)- 116029-39-1, 1,4-Piperazinedicarboxamide, N,N'-bis(1,1,3,3-tetramethylbutyl)-N,N'-bis(2-vinyloxyethyl)- 117900-00-2, Urea, 1,1',1'''-(1,2,6-hexanetriyl)tris[3-(1,1-dimethyl-2-vinyloxyethyl)- 118871-09-3, Urea, 1,1'-(4-chloro-m-phenylene)bis[3,3-bis(2-vinyloxyethyl)- 119568-52-4, Urea, 1,1'-(2,6-naphthylene)bis[3-(2,4-dichlorophenyl)-3-(2-vinyloxyethyl)- 119721-33-4, Urea, 1,1'-decamethylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)- 119721-34-5, Urea, 1,1'-ethylenebis[1-butyl-3-(1,1-dimethyl-2-vinyloxyethyl)- 120122-11-4, Urea, 1,1'-hexamethylenebis[3-benzyl-1-(p-nitrophenyl)-3-(2-vinyloxyethyl)- 120526-81-0, Urea, 1,1'-p-phenylenebis[3-(1,1-dimethyl-2-vinyloxyethyl)-1-ethyl- 121446-76-2, Urea, 1,1'-hexamethylenebis[1-(p-chlorophenyl)-3-(2-cyanoethyl)-3-(2-vinyloxyethyl)- 122337-39-7, Urea, 1,1'-hexamethylenebis[1-dodecyl-3-(2-hydroxyethyl)-3-(2-vinyloxyethyl)- 122359-64-2